



**REPORT TO
HEALTH INFRASTRUCTURE**

**ON
REMEDIATION ACTION PLAN (RAP)**

**FOR
PROPOSED NEW SHELLHARBOUR HOSPITAL
DEVELOPMENT**

**AT
86 DUNMORE ROAD, DUNMORE, NSW**

Date: 13 October 2022
Ref: E34300PTcpt4-RAP

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Executive Summary

Health Infrastructure ('the client') commissioned JK Environments (JKE) to prepare a Remediation Action Plan (RAP) for the proposed New Shellharbour Hospital development at 86 Dunmore Road, Dunmore, NSW. The site location is shown on Figure 1 and the RAP applies to the proposed development area (referred to as 'the site') as shown on Figure 2. The wider property was previously divided into four zones (Zone A to Zone D inclusive), as shown on the figures in Appendix A. The site includes Zone B and Zone C.

Previous investigations of the site and wider property were undertaken by Cardno and JBS&G. JKE has also previously undertaken a Preliminary Site Investigation (PSI) (desktop), a hazardous building materials survey (HAZMAT), a Detailed (Stage 2) Site Investigation, Verification of Importation of Virgin Excavated Natural Material (VENM), and an Additional Groundwater Assessment. These investigations identified asbestos containing material (ACM) on the site surface, and lead above the human health site assessment criteria (SAC) in fill in Zone C around the buildings and structures. ACM was encountered in five fill stockpiles, and copper and zinc were also reported above the ecological SAC in several fill stockpiles. Based on these findings, preparation of a RAP was recommended. Key information from these investigations is summarised in Section 2 and throughout this report where relevant.

It is understood that the proposed development includes construction of a new main hospital building in the central portion of the site (Zones B and C). Some cut and fill earthworks are anticipated for the building due to the sloping nature of the site to achieve the proposed ground floor level. Bulk earthworks excavations are proposed to extend to relative level (RL) 6.5m Australian Height Datum (AHD) in the north-west portion of the building footprint, and between RL11.85m and RL16.6m in the east of the building footprint. An internal access road is proposed extending south from the north-west corner of Zone B, and making a righthand turn and running parallel with the southern boundary of Zone B before exiting the site. Bulk excavation for the access road is proposed at 400mm below design level. To the west of the access road, a sediment basin, is also proposed to be installed, (basin base RL1.3m). Bulk excavation of between 1.2m and 2.2m will be required to achieve the base level for installation of the sediment basin. Selected bulk earthworks plans are attached in Appendix B.

The goal of the remediation is to render the site suitable for the proposed development from a contamination viewpoint. The primary aim of the remediation at the site is to reduce the human health and ecological risks posed by site contamination to an acceptable level. The primary objectives of the RAP are to:

- Summarise previous investigations and historical contamination data;
- Provide a methodology to remediate and validate the site;
- Provide a contingency plan and unexpected finds protocol for the remediation works; and
- Outline site management procedures to be implemented during remediation.

Investigations at the site by JKE and others have identified ACM on the site surface and lead in fill at concentrations that exceeded the human health-based land use criteria. Existing fill stockpiles on the site were also found to contain ACM, and copper and zinc above the ecological-based land use criteria.

The proposed remediation strategy includes excavation and off-site disposal of asbestos and lead impacted fill and stockpiles from the site. This will remove the source of contamination and will render the site suitable for the proposed hospital development from a contamination viewpoint.

JKE is of the opinion that the site can be made suitable for the proposed development via remediation and the implementation of this RAP. Site validation reporting is to occur as specified in this RAP to document that the procedures have been followed and to demonstrate that the site is suitable on completion of the remediation.

The RAP has met the objectives outlined in Section 1.2.



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Abbreviations

Asbestos Fines/Fibrous Asbestos	AF/FA
Ambient Background Concentrations	ABC
Added Contaminant Limits	ACL
Asbestos Containing Material	ACM
Australian Drinking Water Guidelines	ADWG
Area of Environmental Concern	AEC
Australian Height Datum	AHD
Asbestos Removal Control Plan	ARCP
Acid Sulfate Soil	ASS
Above-Ground Storage Tank	AST
Below Ground Level	BGL
Benzo(a)pyrene Toxicity Equivalent Factor	BaP TEQ
Bureau of Meteorology	BOM
Benzene, Toluene, Ethylbenzene, Xylene	BTEX
Cation Exchange Capacity	CEC
Contaminated Land Management	CLM
Contaminant(s) of Potential Concern	CoPC
Chain of Custody	COC
Conceptual Site Model	CSM
Development Application	DA
Dial Before You Dig	DBYD
Data Quality Indicator	DQI
Data Quality Objective	DQO
Detailed Site Investigation	DSI
Ecological Investigation Level	EIL
Ecological Screening Level	ESL
Environmental Management Plan	EMP
Excavated Natural Material	ENM
Environment Protection Authority	EPA
Environmental Site Assessment	ESA
Fibre Cement Fragment(s)	FCF
General Approval of Immobilisation	GAI
General Solid Waste	GSW
Health Investigation Level	HILs
Health Screening Level	HSL
Health Screening Level-Site Specific Assessment	HSL-SSA
International Organisation of Standardisation	ISO
JK Environments	JKE
Lab Control Spike	LCS
Licensed Asbestos Assessor	LAA
Light Non-Aqueous Phase Liquid	LNAPL
Map Grid of Australia	MGA
National Association of Testing Authorities	NATA
National Environmental Protection Measure	NEPM
Organochlorine Pesticides	OCP
Organophosphate Pesticides	OPP
Polycyclic Aromatic Hydrocarbons	PAH
Potential ASS	PASS
Polychlorinated Biphenyls	PCBs
Per- and Polyfluoroalkyl Substances	PFAS
Photo-ionisation Detector	PID
Protection of the Environment Operations	POEO
Practical Quantitation Limit	PQL



Quality Assurance	QA
Quality Control	QC
Remediation Action Plan	RAP
Relative Percentage Difference	RPD
Site Assessment Criteria	SAC
Sampling, Analysis and Quality Plan	SAQP
Site Audit Statement	SAS
Site Audit Report	SAR
State Environmental Planning Policy	SEPP
Site Specific Assessment	SSA
Source, Pathway, Receptor	SPR
Specific Contamination Concentration	SCC
Standard Penetration Test	SPT
Special Waste Asbestos	SWA
Standing Water Level	SWL
Trip Blank	TB
Toxicity Characteristic Leaching Procedure	TCLP
Total Recoverable Hydrocarbons	TRH
Trip Spike	TS
Upper Confidence Limit	UCL
United States Environmental Protection Agency	USEPA
Underground Storage Tank	UST
Virgin Excavated Natural Material	VENM
Volatile Organic Compounds	VOC
World Health Organisation	WHO
Work Health and Safety	WHS

Units

Litres	L
Metres BGL	mBGL
Metres	m
Millivolts	mV
Millilitres	ml or mL
Milliequivalents	meq
micro Siemens per Centimetre	$\mu\text{S}/\text{cm}$
Micrograms per Litre	$\mu\text{g}/\text{L}$
Milligrams per Kilogram	mg/kg
Milligrams per Litre	mg/L
Parts Per Million	ppm
Percentage	%
Percentage weight for weight	%w/w

1 INTRODUCTION

Health Infrastructure ('the client') commissioned JK Environments (JKE) to prepare a Remediation Action Plan (RAP) for the proposed New Shellharbour Hospital development at 86 Dunmore Road, Dunmore, NSW. The site location is shown on Figure 1 and the RAP applies to the proposed development area (referred to as 'the site') as shown on Figure 2. The wider property was previously divided into four zones (Zone A to Zone D inclusive), as shown on the figures in Appendix A. The site includes Zone B and Zone C.

Previous investigations of the site and wider property were undertaken by Cardno and JBS&G. JKE has also previously undertaken a Preliminary Site Investigation (PSI) (desktop)¹, a hazardous building materials survey (HAZMAT)², a Detailed (Stage 2) Site Investigation³, Verification of Importation of Virgin Excavated Natural Material (VENM)⁴, and an Additional Groundwater Assessment⁵. These investigations identified asbestos containing material (ACM) on the site surface, and lead above the human health site assessment criteria (SAC) in fill in Zone C around the buildings and structures. ACM was encountered in five fill stockpiles, and copper and zinc were also reported above the ecological SAC in several fill stockpiles. Based on these findings, preparation of a RAP was recommended. Key information from these investigations is summarised in Section 2 and throughout this report where relevant.

1.1 Proposed Development Details

It is understood that the proposed development includes construction of a new main hospital building in the central portion of the site (Zones B and C). Some cut and fill earthworks are anticipated for the building due to the sloping nature of the site to achieve the proposed ground floor level. Bulk earthworks excavations are proposed to extend to relative level (RL) 6.5m Australian Height Datum (AHD) in the north-west portion of the building footprint, and between RL11.85m and RL16.6m in the east of the building footprint.

An internal access road is proposed extending south from the north-west corner of Zone B, and making a righthand turn and running parallel with the southern boundary of Zone B before exiting the site. Selected plans are attached in Appendix B.

1.2 Remediation Goal, Aims and Objectives

The goal of the remediation is to render the site suitable for the proposed development from a contamination viewpoint. The primary aim of the remediation at the site is to reduce the human health and ecological risks posed by site contamination to an acceptable level.

¹ JK Environments (JKE), (2021a). *Report to Health Infrastructure on Preliminary (Stage 1) Site Investigation, for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW*. (Ref: E34300PTrpt, dated 30 September 2021) (referred to as PSI)

² JK Environments (JKE), (2021b). *Report to Health Infrastructure on Hazardous Building Materials Survey, for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW*. (Ref: E34300PTrpt-HAZ, dated 27 October 2021) (referred to as HAZMAT)

³ JK Environments (JKE), (2021c). *Report to Health Infrastructure on Detailed (Stage 2) Site Investigation, for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW*. (Ref: E34300PTrpt2, dated 15 December 2021) (referred to as DSI)

⁴ JK Environments (JKE), (2022a). *Report to Health Infrastructure on Verification of Importation of Virgin Excavated Natural Material (VENM), for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW*. (Ref: E34300PTrpt-VENM, dated 22 March 2022) (referred to as Verification of Imported VENM)

⁵ JK Environments (JKE), (2022b). *Letter Report to Health Infrastructure on Additional Groundwater Assessment, for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW*. (Ref: E34300PTlet5_rev1, dated 13 October 2022) (referred to as additional groundwater assessment)

The primary objectives of the RAP are to:

- Summarise previous investigations and historical contamination data;
- Provide a methodology to remediate and validate the site;
- Provide a contingency plan and unexpected finds protocol for the remediation works; and
- Outline site management procedures to be implemented during remediation.

1.3 Scope of Work

The RAP was prepared generally in accordance with a JKE proposal (Ref: E34300PTlet4_Variation DSI Recommendations) of 19 April 2022 and written acceptance from Savills Australia on behalf of the client on 2 May 2022. The scope of work included a review of previous reports and Conceptual Site Model (CSM), and preparation of the RAP.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)⁶, State Environmental Planning Policy No.55 – Remediation of Land (1998)⁷ and other guidelines made under or with regards to the Contaminated Land Management Act (1997)⁸, including the Consultants Reporting on Contaminated Land (2020)⁹ guidelines.

A list of reference documents/guidelines is included in the appendices.

⁶ National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)*. (referred to as NEPM 2013)

⁷ *State Environmental Planning Policy No. 55 – Remediation of Land 1998* (NSW) (referred to as SEPP55)

⁸ Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

⁹ NSW EPA, (2020). *Consultants reporting on contaminated land, Contaminated Land Guidelines*. (referred to as Consultants Reporting Guidelines)

2 SITE INFORMATION

2.1 Summary of Previous Investigations

A summary of relevant information from reports provided to JKE is outlined in the table below:

Table 2-1: Previous information summary

Report	Summary of relevant information
Preliminary Geotechnical & Phase 1 Contamination Assessment Cardno, 2016 ¹⁰	The environmental findings relevant to the site can be summarised as follows: • Zones B and C have been used for agricultural land uses including livestock grazing since at least 1948; • There is a high probability of the presence of ASS at depths of between 2m and 4m below ground level (mBGL) in areas of alluvial deposits in the south western section of Zone B; • Storage of domestic, farming, construction and other sundry items was observed in the buildings and structures in the vicinity of the residence. The structures comprise a weatherboard residence with a metal roof and on brick piers, brick stables, small chicken shed, timber and metal clad stables, several relatively large metal clad sheds, and several smaller timber and metal clad sheds, the majority of which are unused; • Various items stored in sheds and stockpiled around the structures generally comprise abandoned farm machinery and farm equipment, gardening equipment, scrap roof tiling, several empty drums, timber and metal fencing, scrap timber and metal, galvanised roofing, hose, tyres, plastic fragments and sheeting, concrete fragments and pipe, bricks and domestic scrap/waste; and • Stockpiles to the south of the structures near the western boundary (Zone C) were vegetated and contained large rock and concrete fragments at the surface.
Target Detailed Site Investigation Cardno, 2018 ¹¹	Included investigation of each area of environmental concern (AEC) identified in the Cardno 2016 report, comprising: • 22 test pits in Zones C and D; • 15 soil stockpiles located southwest of the residence in Zone C; • Four test pits in the south-west corner of Zone B (acid sulfate soil (ASS)); and • 23 shallow soil bores across Zones B, C and D. A number of soil samples contained contaminants of potential concern (CoPC) that exceeded the adopted SAC for residential land use, including: • Elevated concentrations of lead above the human health SAC. Statistical analysis of the data indicated overall exposure was unlikely to constitute a risk the potential receptors under the proposed residential land use; • Elevated concentrations of copper and zinc above the ecological SAC in the stockpiles; • Asbestos fragments were observed in three stockpiles (JKE stockpiles SP5, SP7 and SP10); • Asbestos cement sheeting was observed on the ground surface in the vicinity of the buildings and structures; and • ASS parameters exceeded the adopted action criteria in a number of soil samples from the south-west corner of Zone B.

¹⁰ Cardno, (2018). *Targeted Detailed Site Investigation Shell Heights South, Prepared for Shellharbour Developments*. (Ref: 82013011 R001 Shell Heights Sth DSI Rev3, dated 4 May 2018) (referred to as Cardno 2016)

¹¹ Cardno, (2018). *Targeted Detailed Site Investigation Shell Heights South, Prepared for Shellharbour Developments*. (Ref: 82013011 R001 Shell Heights Sth DSI Rev3, dated 4 May 2018) (referred to as Cardno 2018)

Report	Summary of relevant information
Planning Proposal MMJ, 2020 ¹²	The planning proposal outlined the findings of the Cardno investigations as summarised above, and noted that these impacts could be addressed in future Development Applications subject to further environmental assessment through the Section 4.15 Assessment process (Environmental Planning and Assessment Act 1974), and any future development will be subject to the provisions of SEPP55 (we note SEPP55 is now SEPP Resilience and Hazards 2021).
Due Diligence Contamination Assessment JBS&G, 2020 ¹³	The due diligence assessment included a desktop review of site information and a site inspection. The following AEC were identified: fill materials of unknown origin; historical use of the site for agricultural purposes; and hazardous building materials associated with former/current structures at the site.
PSI JKE, 2021a	The PSI included a site inspection and review of site history and site information (including previous reports). JKE identified the following potential contamination sources/AEC: fill material; agricultural land use; and hazardous building materials (former and existing structures). Based on the data collected by others and the potential contamination sources/AEC that were identified during the PSI, further investigation of the contamination conditions at the site was considered to be required and a DSI was recommended. The report concluded by that the historical land uses and potential sources of contamination identified would not preclude the proposed hospital development. However, recommended the following to assess the risks associated with potential and known contamination at the site and provide information to facilitate remediation: a DSI, including investigation of stockpiles, in-situ soils and groundwater; further delineation of ASS; waste classification assessment; and hazardous building materials survey of the buildings.
HAZMAT JKE, 2021b	Included hazardous building materials survey of 10 buildings/structures and three piles of demolition materials in Zone C. The findings of the HAZMAT are summarised as follows: - Both friable and bonded/non-friable asbestos containing materials were encountered at the site; - The friable asbestos was identified in the form of the fibrous backing to vinyl sheeting in the kitchen and porch of the residence. As the material was located on the underside of the vinyl sheeting which was in a stable condition at the time of the survey, and the residence is vacant and disused. There was not considered to be a significant asbestos related health risk related to this material while it remained undisturbed; - All other ACM identified were considered to be non-friable (bonded). It was noted numerous fragments and broken sheets of asbestos fibre cement sheet was identified across the surface of the site and generally around the large shed and residence. It was recommended that surficial material be removed prior to disturbance of any soil at the site; - Polychlorinated Biphenyls (PCBs) in fluorescent light fittings potentially housing PCB containing capacitors were identified in the large shed and residence; and - Materials containing synthetic mineral fibre (SMF) were identified in the form of hot water units and foil backed insulation in the residence and large shed at the site.

¹² MMJ Wollongong, (2020). *Planning Proposal Amendment to Shellharbour Local Environmental Plan 2013 Proposal to increase housing supply and diversity of certain residential land and rezone business zoned land to residential at Dunmore Lot 1 DP 1144885, 86 Dunmore Road, Dunmore Lot 12 DP 1225061, Lot 35 DP 1225061, and Lot 38 DP 1225061.* (Ref: 19.36, dated October 2020) (referred to as MMJ Planning Proposal)

¹³ JBS&G, (2020). *Due Diligence Contamination Assessment, Site 15 – Dunmore Road, Dunmore NSW.* (Ref: L04 – Due Diligence Contamination Assessment Site 15 (Rev 0), dated 13 November 2020) (referred to as JBS&G 2020)

DSI JKE 2021c	The DSI included a review of site information, a site inspection, soil sampling from 178 test pits, eight boreholes, and groundwater sampling from seven monitoring wells across wider property. • ACM was encountered on the site surface in Zone C around the buildings and structures; • Lead was reported above the human health SAC in fill in three locations in Zone C around the buildings and structures. Statistical analysis of the lead dataset indicated that the 95% upper confidence limit (UCL) for lead was below the health-based SAC; • Perfluorooctanesulfonic acid (PFOS) was reported above the indirect ecological SAC in fill in one location in Zone A (we note that this occurrence was at the southern end of Zone A, not within the site applicable to the RAP); • Copper was reported above the ecological SAC in one natural soil sample Zone A. Statistical analysis of the copper dataset indicated that the 95% UCL for copper was below the ecological SAC; • ACM was encountered in five fill stockpiles during the DSI and previous investigations; • Copper and zinc were also reported above the ecological SAC in several fill stockpiles; • Copper and zinc were reported above the ecological SAC in groundwater however, these heavy metals were considered to be associated with regional conditions and were not assessed to pose an unacceptable risk; and • Total recoverable hydrocarbons (TRHs) were reported above the site-specific health-based SAC in groundwater, and the associated risks required further characterisation in relation to vapour intrusion. The DSI noted that as a duty of care, and to meet the requirements under Clause 429 of the Work Health and Safety Regulation (2017), an interim AMP (for asbestos in/on soil) should be prepared and implemented to manage the site until development occurs. Remediation is required in relation to surficial ACM in Zone C. To align with the NHMRC health policy which is to minimise exposure to lead, regardless of the potential for adverse health effects, the remedial process should include provisions for the removal of the lead impacted soil concurrently when addressing the occurrence of ACM in the surficial soil. Additional data collection and risk assessment is required to establish whether remediation of per- and polyfluoroalkyl substances (PFAS) in soil and TRH in groundwater is necessary. Notwithstanding, we concluded in the DSI that the site can be made suitable for the proposed development via remediation. The following was recommended: 1. Preparation of an interim AMP to manage risks from asbestos in soil until the proposed development occurs; 2. An additional round of groundwater sampling and analysis for TRH; 3. Targeted soil investigation for PFAS in the southern section of the site section of the site (i.e. in the vicinity of TP101) to better assess these risks; 4. When the development details are known, including the full extent and depth of soil disturbance, a review of the ASS data in this DSI report must occur to establish where any data gaps exist that warrant further investigation, or whether there is a need for an acid sulfate soil management plan (ASSMP); 5. Preparation of a RAP for the site following completion/implementation of the above recommendations; and 6. Preparation of a validation assessment report for the remediation works undertaken at the site.
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Report	Summary of relevant information
	In the context of the RAP, it is noted that the recommendation in relation to PFAS was not implemented as the PFOS impact was not near the site area. It was also noted that towards the end of the fieldwork investigation programme for the DSI, material was imported onto the site by others and some earthworks occurred. We recommended that the client takes reasonable steps to minimise its risk in relation to such activities so that the activities do not adversely alter the site contamination conditions.
Verification of Imported Virgin Excavated Natural material (VENM) JKE 2022	Following completion of the DSI, JKE was informed that in total, approximately 30,000m³ of virgin excavated natural material (VENM) was imported and stockpiled on site. No documentation or waste tracking information was provided for the material, however, JKE was advised that the material was classified (by others) and imported as VENM for beneficial reuse. JKE undertook a contamination screening intended for verification of the imported VENM. Soil samples were obtained from 30 test pit locations generally positioned on a 15m grid across the stockpile. The stockpiled material generally comprised silty gravelly clay, (sandstone and ironstone gravels), with inclusions of sand, sandstone boulders and siltstone gravels. No visible or olfactory indicators of contamination were observed and no potential asbestos containing materials were observed during the fieldwork. Copper was detected at concentrations above the ecological SAC in three samples. Statistical analysis was undertaken on the entire data set from across the stockpile and the calculated UCL was below the ecological SAC. The UCL was considered acceptable, and copper was not considered to pose a risk to ecological receptors. No asbestos containing materials were encountered in the stockpiled material during the field work. No asbestos was detected in the soil samples analysed. Based on the results of the screening JKE was of the opinion that the material would not pose a risk from a contamination perspective in the context of the proposed land use, were it to remain on site. However as VENM documentation was not supplied indicating the source of the material, and given that the material was no longer in-situ at the source, JKE could not verify that the material was VENM. The material was considered to be natural excavated soil/rock, based on observations made during the fieldwork and the reported analysis results. There was no indication of other waste or impacts from manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities.
Additional Groundwater Assessment JKE 2022	The additional groundwater assessment was designed to address recommendation 2 in the DSI for another round of groundwater sampling. The assessment included groundwater sampling from four existing monitoring wells within Zone B and Zone C (the site area and area applicable to this RAP). All TRH and benzene, toluene, ethylbenzene and xylenes (BTEX) results were less than the laboratory practical quantitation limits (PQLs) in the groundwater samples analysed, and all results were below the SAC. Based on the findings of the additional groundwater assessment, JKE was of the opinion that potential risks associated with TRHs in groundwater in the development area (Zone B and Zone C) are low in the context of the proposed development. Further groundwater investigation and/or soil vapour assessment was not considered to be required.

Key summary information including additional figures, data summary tables and borehole/test pit logs are included in Appendix C for reference purposes.

2.2 Site Identification

Table 2-2: Site Identification

Site Address:	86 Dunmore Road, Dunmore, NSW
Lot & Deposited Plan:	Lot 10 in DP1281639
Current Land Use:	Grazing
Proposed Land Use:	Hospital and grounds, including car park and landscaping
Local Government Authority:	Shellharbour City Council
Current Zoning:	R2 Low Density Residential
Site Area (Ha) (approx.):	10Ha Zone B – 4Ha Zone C – 6Ha
RL (AHD in m) (approx.):	2 - 40
Geographical Location (decimal degrees) (approx. centre of site):	Latitude: -34.600288 Longitude: 150.843610
Site Plans:	Appendix A

2.3 Site Location, Topography and Regional Setting

The site is located in a semi-rural/residential area of Dunmore and is bound by Dunmore Road to the east and the Illawarra Railway line to the west. The site is located approximately 100m to the west of a tributary of Rocklow Creek and 1km from Rocklow Creek proper.

The regional topography is characterised by relatively level to gently undulating coastal plain situated at the foothills of the Illawarra escarpment. The site itself is situated on a western facing hillside. The hillside has a relief of approximately 46m across the site with the highest point situated at the north-eastern corner of the wider property (in Zone D) adjacent to Dunmore Road, at a RL of approximately 50m AHD. The lowest point is at an RL of approximately 4m AHD at the transition within the neighbouring floodplain to the west within Zone B.

Surface levels across the hillside slope down overall to the south-west at approximately 3°, however levels across the site undulate along a series of generally broad spurs and gullies originating from the main ridgeline along Dunmore Road and which drain towards the west. Slopes across these hills are typically 1° to 2° near the crests with slopes on the shoulder and backslopes generally ranging from 7° to 8° in the northern half of

the site and 4° to 5° in the southern half. Surface levels flatten at the toe of the slopes near the western site boundary.

2.3.1 Site Inspection

The most recent site walkover inspection of the site was undertaken by JKE on 23 May 2022 as part of the additional groundwater assessment. The inspection was limited to accessible areas of the site and immediate surrounds. Key observations summarised below:

- The site was being utilised as grazing pasture for a small herd of cattle (approximately 20 animals);
- The site was fenced along the east and west boundary, with access available to the north where temporary fencing was present;
- A large stockpile of imported material was present to the north-west of the site buildings and structures. The stockpile was approximately 150m in length, 50m in width and up to 5m in height. No visible or olfactory evidence of contamination was observed on the stockpiled materials;
- A large pile of building and demolition rubble (bricks, metal, plastic, etc) was observed to the south of the residence. This was considered likely to be the remnants of the horse stables observed during the previous Cardno investigations. Other scattered general waste, tyres and disused 44-gallon drums (empty/unlabelled) were observed around the buildings and structures in Zone C;
- A large pile of broken corrugated fibre cement was observed in the structure to the immediate south-west of the residence, and scattered around other buildings and structures in Zone C (as noted in the Cardno investigations). Other building and demolition rubble as previously discussed was also present in Zone C;
- Localised erosion was visible along cattle routes across the site (Zone B and C), and in the driveway in Zone C;
- Surface water flows in all zones would be expected to flow to the west and south-west in keeping with the localised fall of the site; and
- The entire site was generally grass covered, with a number of medium to large trees in Zone C around the buildings and structures. No obvious signs of plant stress were observed.

2.4 Summary of Site History

A time line summary of the historical land uses and activities is presented in the table below. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE during the previous investigations.

Table 2-3: Summary of Historical Land Uses

Year(s)	Potential Land Use / Activities
Pre-1949	Historical photographs and title records indicated that the site was predominantly used for agricultural (grazing) and rural/residential purposes. Potential pesticide/herbicide applications (associated with farming and waterways) may have occurred during this time. Zone B, C and D was leased to Blue Metal Quarries although quarrying was considered unlikely to have occurred on site.

Year(s)	Potential Land Use / Activities
1949 to present	Historical photographs and title records indicated that continued agricultural (farming/grazing) land use and potential filling of the site for existing and former buildings and structures (primarily in Zone C) occurred during this time. The historical photographs also indicated that some demolition of original and other site structures potentially containing hazardous building materials (Zones A and C) had taken place.

2.4.1 Surrounding Land Use

JKE observed the following land uses in the immediate surrounds of the site and wider property during the site inspection: the wider property (Zone D), Shellharbour Anglican College with associated playing fields and dam are to the north; the wider property (remainder of Zone A), Illawarra railway, Princes Highway and agricultural (grazing) land to the south; residential properties, Dunmore Recycling Depot and Shellharbour Links to the east; and Illawarra railway, Princes Highway and agricultural (grazing) land to the west.

The Dunmore Recycling Depot is located on the east facing side of the ridgeline (see Figure 2a and 2b in Appendix C), with no connecting waterways and was considered unlikely to be a potential off-site contamination source for the site or wider property.

2.5 Summary of Geology, Soils and Hydrogeology

2.5.1 Regional Geology

Regional geological maps indicated that the majority of the site is underlain by the Bumbo Latite Member of the Shoalhaven Group, which typically consists of latite, and the Kiama Sandstone Member of the Shoalhaven Group, which typically consists of trachyte tuff with pebbly bands. The maps indicated that the lower lying sections of the western boundary of the site are underlain by Quaternary aged deposits of sand, silt and gravel.

2.5.2 Acid Sulfate Soil (ASS) Risk and Planning

ASS information reviewed as part of the previous investigations indicated that the western boundary of Zone B is located within a Class 3 ASS risk area. Works in a Class 3 risk area that could pose an environmental risk in terms of ASS include works at depths beyond 1m below existing ground level or works by which the water table is likely to be lowered beyond 1m below existing ground level. The remainder of the site and wider property was not identified to be in an ASS risk area.

Reference is to be made to the ASSMP¹⁴ for further details and the management requirements must be implemented (where required) for the proposed development works. Implementation of the ASSMP is not anticipated to be required within the scope of remediation.

¹⁴ JK Environments (JKE), (2022c). *Report to Health Infrastructure on Acid Sulfate Soil Management Plan (ASSMP), for Proposed New Shellharbour Hospital Development, at 86 Dunmore Road, Dunmore NSW.* (Ref: E34300PTrpt5-ASSMP_rev1, dated 13 October 2022) (referred to as ASSMP)

2.5.3 Hydrogeology and Groundwater

Information reviewed for the previous investigations indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive highly productive aquifers. There was a total of 108 registered bores within 2km of the site and wider property. The nearest of these being approximately 155m from the site and utilised for stock purposes. The majority of the remaining bores were utilised for monitoring purposes.

Subsurface conditions at the site are generally expected to consist of low to moderate permeability (residual) soils overlying shallow bedrock. Abstraction and use of groundwater at the site or in the immediate surrounds may be viable under these conditions, however the use of groundwater is not proposed as part of the development. There is a reticulated water supply in the area and human consumption of groundwater is not expected to occur.

Cardno (2018) encountered clayey soils overlying shallow shale bedrock in the western section of Zone B and C during the TDSI.

Considering the local topography, surrounding land features and existing site information, groundwater beneath the site is anticipated to flow towards the south-west to west.

There is an ephemeral creek line in Zone B that drains towards the south-west, to a tributary west of the highway which appears to connect to a surface water body located approximately 200m south-west of the site and wider property, relating to the Boral Dunmore quarry, and to Rocklow Creek approximately 1.1km south of the site. These water bodies are down-gradient from the site and wider property and are considered to be potential receptors.

3 SITE CHARACTERISATION AND CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the previous investigation data, site history and site information presented in Section 2.

3.1 Summary of Contamination (Site Characterisation)

Previous investigations at the site encountered:

- ACM on the site surface in Zone C around the buildings and structures. The source of the asbestos is considered likely to be associated with the existing site buildings and structures and/or with waste generated during historical demolition activities at the site. It is possible that some of the ACM fragments have been mixed into the surficial layer of soil around the former structures and beneath stockpiles etc due to general foot and machinery traffic that would have occurred over time;
- Lead above the human health SAC in fill in Zone C around the buildings and structures. Statistical analysis of the lead dataset indicated that the 95% UCL for lead was below the health-based SAC. However, to align with the National Health and Medical Research Council (NHMRC) health policy to minimise exposure to lead, regardless of the potential for adverse health effects, the remedial process includes provisions for the removal of the lead impacted soil concurrently when addressing the occurrence of ACM in the surficial soil;
- ACM in existing fill stockpiles in Zone C (SP5, SP6, SP7 and SP10); and
- Copper and zinc above the ecological SAC in several other existing fill stockpiles (SP1, SP2, SP4, SP5 and SP11).

A copy of the laboratory data summary tables from the DSI (including the entire dataset for the wider property) and the SAC exceedance plans are attached in Appendix C. Exceedances relevant to the site are shown on Figure 2 in Appendix A.

For the purpose of remediation, the contaminants of concern are ACM, lead, copper and zinc.

3.2 Review of CSM

The table below includes a review of the CSM which has been used to design the remediation strategy. The CSM will require further review if additional site data becomes available.

Table 3-1: CSM

Contaminant source(s) and contaminants of concern	Contamination sources: fill soil/surface soil, fill stockpiles (SP1, SP2, SP4, SP5, SP6, SP7, SP10, and SP11) and existing buildings and structures and piles of demolition material. Contaminants of concern: asbestos (ACM), and heavy metals (lead, copper and zinc).
Affected media	Soil/fill, is the affected medium for remediation. The potential for asbestos fibres to become airborne has also been considered.

Receptor identification	Human receptors include construction workers, intrusive maintenance workers, and hospital workers and visitors in the context of the proposed development, and adjacent land users. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas).
Exposure pathways and mechanisms	Potential exposure pathways relevant to the human receptors and the associated contaminants of concern include ingestion, dermal absorption and inhalation of dust (including inhalation of airborne asbestos fibres). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Ecological receptors: potential exposure pathways for copper and zinc include primary/direct contact (including uptake by plants), and ingestion. Exposure could occur in the proposed landscaped areas only and would not occur in areas under pavements or in areas where all fill is removed.
Evaluation of data gaps	Sampling was not undertaken beneath the existing structures at the site due to accessibility constraints. Contamination risks in these areas are likely to be consistent with the findings in the adjoining areas and these can be addressed via the implementation of the unexpected finds protocol (Section 7.1). The potential occurrence of ACM on/in soil and lead in fill will be addressed during validation of the remediation works in this section of the site Section 5.3.3. A secondary data gap was identified in regards to several areas along the eastern site boundary were not investigated due to Aboriginal heritage constraints which prohibited access during the DSI (see Figure 2 in Appendix A). This will be addressed via the implementation of the unexpected finds protocol (Section 7.1).

3.3 Remediation Extent

For the purpose of this RAP, the following remediation areas have been defined as follows and are shown on Figure 2 in Appendix A:

3.3.1 Around the Buildings and Structures (Zone C)

The fill/surficial soil around the buildings and structures is impacted by ACM and lead. The fill extended to depths ranging from 0.1-0.5mBGL. The ACM and lead impacts are suspected to be associated with the surficial layer of fill (i.e. 0.0-0.1m). The remediation area was delineated by capturing all locations where an exceedance of the SAC occurred or where ACM was observed, generally by drawing a continuous line joining the nearest adjacent test pits where there was no SAC exceedance (see Figure 2 in Appendix A). This area was estimated to cover ~3,600m².

The final extent of remediation will be confirmed via the validation process.

3.3.2 Existing Stockpiles

- Stockpile 1 (SP1) – copper above the ecological SAC;
- Stockpile 2 (SP2) – copper above the ecological SAC;

- Stockpile 4 (SP4) – copper above the ecological SAC;
- Stockpile 5 (SP5) – ACM, and copper and zinc above the ecological SAC;
- Stockpile 6 (SP6) – ACM;
- Stockpile 7 (SP7) – ACM; and
- Stockpile 10 (SP10) – ACM; and
- Stockpile 11 (SP11) – copper above the ecological SAC.

The final extent of remediation will be confirmed via the validation process.

3.4 Summary of Waste Classification Assessment

Fill at the site comprised either a disturbed topsoil/cultivated layer (not virgin ground) across a majority of the site, or an imported/emplaced material generally positioned around the buildings and structures in Zone C.

Table 3-2: Waste Classification

Waste Type	Classification	Comments
In-situ Fill (Site wide)	• General Solid Waste (non-putrescible) containing Special Waste (asbestos) (GSW-SWA) – Surficial fill in the remediation area (see Figure 2 in Appendix A). This classification has been applied as there was ACM on the ground surface and it would be difficult to ensure this was all removed without scraping back the surface; and • General Solid Waste (non-putrescible) (GSW) – Fill in the remaining areas of the site tested as part of the DSI is classified as GSW.	Once the excavation details/work methods and anticipated waste quantities are known, the requirements for further waste classification should be assessed and JKE should be contacted to discuss the requirements for any further inspections, analysis and/or reporting. The extent of sampling in fill has been comprehensive and we anticipate that confirmation of the waste classification for fill may be limited to inspections of the site/waste during the works and preparation of a cover letter to document these inspections and the final waste quantity (unless alternative classifications are pursued to facilitate re-use of the waste on another site, which may trigger a need for further classification).
Fill Stockpiles (Zone C)	• General Solid Waste (non-putrescible) containing Special Waste (asbestos) (GSW-SWA) – Stockpiles SP5 (Cardno stockpile 9), SP6 (Cardno stockpile 13), SP7 (Cardno stockpile 12) and SP10 (Cardno stockpile 4) due to the presence of asbestos (ACM) is classed as GSW-SWA; • General Solid Waste (non-putrescible) (GSW) – Fill in the remaining stockpiles (SP1, SP2, SP3, SP4, SP8, SP9, SP11, SP12 and SP13) tested as part of the DSI is classified as GSW.	SP6 detected concentrations of total scheduled chemicals above the scheduled chemicals threshold of 2mg/kg outlined in NSW EPA Chemical Control Order in Relation to Scheduled Chemical Wastes (2004). The fill material containing scheduled chemicals can only be disposed of to a NSW EPA-licensed landfill permitted to receive scheduled chemicals.
Natural Soil and Bedrock	Based on the scope of work undertaken for this assessment, and at the time of reporting, JKE is of the opinion that the natural soil and bedrock at the site, except for natural soil deemed to be PASS in accordance with the ASSSMP, meets the definition	In accordance with Part 1 of the Waste Classification Guidelines, the VENM is pre-classified as general solid waste and can also be disposed of accordingly to a facility that is licensed to accept it.

Waste Type	Classification	Comments
	of VENM for off-site disposal or re-use purposes. VENM is considered suitable for re-use on-site (from a contamination viewpoint), or alternatively, the information included in this report may be used to assess whether the material is suitable for beneficial reuse at another site as fill material.	The VENM classification must be confirmed and re-documented once details of the waste disposal quantities are known. Any VENM sourced from the building area or beneath the stockpiles in Zone C will require further assessment (inspection, sampling and chemical analysis) to demonstrate that the overlying fill has been removed and there are no residual impacts in the VENM.

We have estimated that the following tonnages of fill to be generated for off-site disposal from the remediation areas:

- Approximately 575 tonnes of GSW-SWA from around the buildings and structures;
- Approximately 185 tonnes of GSW-SWA from SP5, SP6, SP7 and SP10; and
- Approximately 190 tonnes of GSW from SP1, SP2, SP4 and SP11.

The client has advised JKE that all existing fill stockpiles are to be removed from the site as part of the development works. In addition to the remediation areas, approximately 155 tonnes of GSW is expected to be generated for off-site disposal from the remaining stockpiles (SP3, SP8, SP9, SP12 and SP13).

These quantities are estimates only and are based on the nominated remediation fill depth or stockpile volume recorded during the DSI, multiplied by a bulking factor of 1.6. A suitably experienced quantity surveyor should confirm the volume and tonnage of fill to be disposed off site prior to commencement of works if more accurate estimates are required by the client.

4 REMEDIATION OPTIONS

4.1 Soil Remediation

The NSW EPA follows the hierarchy set out in NEPM 2013 for the remediation of contaminated sites. The preferred order for soil remediation and management is as follows:

1. On-site treatment of soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level;
2. Off-site treatment of excavated material so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site;

Or if the above are not practicable:

3. Consolidation and isolation of the soil by on-site containment within a properly designed barrier; and
4. Removal of contaminated material to an approved site or facility, followed where necessary by replacement with clean material; or
5. Where the assessment indicates that remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

For simplicity herein, the above hierarchy are respectively referred to as Option 1, Option 2, Option 3 etc.

The NEPM 2013 and Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009)¹⁵ prefer the following asbestos remediation hierarchy:

1. Minimisation of public risk;
2. Minimisation of contaminated soil disturbance; and
3. Minimisation of contaminated material/soil moved to landfill.

The NSW EPA Contaminated Land Management Guidelines for the NSW Site Auditor Scheme (3rd Edition) (2017)¹⁶ provides the following additional requirements to be taken into consideration:

- Remediation should not proceed in the event that it is likely to cause a greater adverse effect than leaving the site undisturbed; and
- Where there are large quantities of soil with low levels of contamination, alternative strategies should be considered or developed.

¹⁵ Western Australian (WA) Department of Health (DoH), (2009). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia. (referred to as WA DoH 2009)

¹⁶ NSW EPA, (2017). *Contaminated land Management, Guidelines for the NSW Site Auditor Scheme (3rd ed.)*. (referred to as Site Auditor Guidelines 2017)

4.2 Remediation Options Assessment

The table below discusses and assesses a range of remediation options:

Table 4-1: Consideration of Remediation Options

Option	Discussion	Assessment/Applicability
Option 1 On-site treatment of contaminated soil	On-site treatment can provide a mechanism to reuse the processed material, and in some instances, avoid the need for large scale earthworks. Treatment options are contaminant-specific and can include bio-remediation, soil washing, air sparging and soil vapour extraction, thermal desorption, and physical removal of ACM from surficial in-situ soil via picking. Depending on the treatment option, licences may be necessary for specific individual waste streams due to the potential for air pollution and the formation of harmful by-products during incineration processes. Licences for re-use of treated material/waste may also be required.	Not applicable based on the combination of contaminants of concern present in fill. Treatment of ACM in soil stockpiles to facilitate re-use of the material is not endorsed by the EPA¹⁷. Picking ACM from the surface of in-situ soils is likely to be time consuming and ineffective due to the clayey nature of fill soils in the remediation area.
Option 2 Off-site treatment of contaminated soil	Contaminated soils are excavated, transported to an approved/licensed treatment facility, treated to remove/stabilise the contaminants then returned to the subject site, transported to an alternative site or disposed to an approved landfill facility. This option is also contaminant-specific. The cost per tonne for transport to and from the site and for treatment is considered to be relatively high. The material would also have to be assessed in terms of suitability for reuse as part of the proposed development works under the waste and resource recovery regulatory framework.	Unlikely to be economically viable for the remaining fill considering the small quantities involved. There are limited treatment options considering the combination of contaminants of concern present in fill. Treatment of ACM in soil stockpiles or waste to facilitate re-use of the material is not endorsed by the EPA.
Option 3 Consolidation and isolation of impacted soil by cap and containment	This would include the consolidation of ACM-impacted soil within an appropriately designed cell, followed by the placement of an appropriate barrier over the material to reduce the potential for future disturbance. The capping and/or containment must be appropriate for the specific contaminants of concern. Depending on the concentrations of contaminants being encapsulated, a long-term environmental management plan (LTEMP) will be required and will need to be publicly notified and made to be legally enforceable (e.g. via listings in the Section 10.7 planning certificate and on the land title). Cap and contain remediation and management via a LTEMP is only considered necessary if contamination exceeding the land use criteria are exceeded and if this material remains on site.	This option may be appropriate for the in-situ contaminated fill impacted by lead and ACM. Not applicable for the waste stockpiles (i.e. waste which is deemed to be imported).

¹⁷ NSW EPA, (2022). *Position Statement – WA guidelines for asbestos contamination sites*. (<https://www.epa.nsw.gov.au/your-environment/contaminated-land/other-contamination-issues/managing-asbestos-in-and-on-land/position-statement-wa-management-of-asbestos-sites>)

Option	Discussion	Assessment/Applicability
Option 4 Removal of contaminated material to an appropriate facility and reinstatement with clean material	Contaminated soils would be classified in accordance with NSW EPA guidelines for waste disposal, excavated and disposed of off-site to a licensed landfill. The material would have to meet the requirements for landfill disposal. Landfill gate fees (which may be significant) would apply in addition to transport costs.	Applicable for the in-situ fill and stockpiles.
Option 5 Implementation of management strategy	Contaminated soils would be managed in such a way to reduce risks to the receptors and monitor the conditions over time so that there is an on-going minimisation of risk. This may occur via the implementation of monitoring programs, potentially also involving capping systems.	Applicable for the long-term management of contamination where Option 3 is implemented.

4.3 Rationale for the Preferred Option for Remediation

The preferred option for remediation is Option 4 (excavation and off-site disposal). This option is considered to be most appropriate for the proposed development based on the following:

- The proposed development includes some excavation of the site to generate required levels for the proposed development;
- The site is largely unpaved in its current configuration and under the proposed development the remediation area will remain unpaved (i.e. it falls outside the proposed building footprint). Risks associated with the surficial fill and existing stockpiles in these areas (should fill/stockpiles remain) are considered to be unacceptable under the proposed land use scenario;
- Removal of the ACM and lead impacted surficial fill and the existing stockpiles will require the shortest timeframe for the remedial works and will minimise the potential for cross contamination too occur; and
- On and off-site treatment technologies are not considered to be economically viable or technically achievable (and in relation to asbestos, are generally not endorsed by the NSW EPA).

5 REMEDIATION DETAILS

5.1 Roles and Responsibilities

Table 5-1: Roles and Responsibilities

Role	Responsibility
Developer	Health Infrastructure Contact: To be confirmed The developer is required to appoint the project team for the remediation and must provide all investigation reports including this RAP to the project manager, remediation contractor, consent authority and any other relevant parties involved in the project.
Project Manager	Savills Australia (at the time of preparation of this RAP) Contact: James Collins The project manager is required to review all documents prepared for the project and manage the implementation of the procedures outlined in this RAP. The project manager is to take reasonable steps so that the remediation contractor and others have understood the RAP and will implement it in its totality. The project manager will review the RAP and other documents and will update the parties involved of any changes to the development or remediation sequence (in consultation with the validation consultant).
Remediation Contractor	To be appointed. The remediation contractor is required to review all documents prepared for the project, apply for any relevant removal licences or permits and implement the remediation requirements outlined in this RAP. The remediation contractor is required to collect all necessary documentation associated with the remediation activities and forward this documentation onto the client, project manager and validation consultant as they become available. The remediation contractor is required to advise the validation consultant at key points in the remediation and validation programme, and implement various aspects of the validation plan assigned to them.
Asbestos Contractor / Removalist	To be appointed. The asbestos contractor/removalist is required to review all documents prepared for the project, apply for any relevant asbestos removal licences or permits, prepare the asbestos removal control plan (ARCP), and supervise and implement the asbestos related remediation requirements outlined in this RAP. The asbestos contractor/removalist may also be the remediation contractor.
Validation Consultant	To be appointed. The validation consultant¹⁸ provides consulting advice and validation services in relation to the remediation, and prepares the site validation report, and any other associated documentation. The validation consultant is required to review any deviation to this RAP or in the event of unexpected finds if and when encountered during the site work. The validation consultant must have a Licensed Asbestos Assessor (LAA) on staff to

¹⁸ The consultant must be a certified practitioner (specialising in site contamination), under one of the NSW EPA endorsed certification schemes

Role	Responsibility
	undertake the required clearance inspections and prepare the asbestos clearance certificates associated with the remediation/validation works. The validation consultant is required to liaise with the client, project manager and remediation contractor on all matters pertaining to the site contamination, remediation and validation, and carry out the required validation tasks.

5.2 Pre-commencement

The project team is to have a pre-commencement meeting to discuss the sequence of remediation, and the remediation and validation tasks. The site management plan for remediation works (see Section 8) must be reviewed by the project manager and remediation contractor, and appropriate steps are to be taken to ensure the adequate implementation of the plan.

5.3 Remediation and Associated Tasks

The following general sequence of works is anticipated:

- Site establishment and demolition/removal of buildings and structures;
- Excavation/surficial fill removal, off-site disposal and validation of the ACM and lead impacted fill around the buildings and structures (Zone C) and the ACM and heavy metal impacted stockpiles (see Figure 2 in Appendix A); and
- Validation of imported soil materials (as required). This includes materials imported to reinstate remedial excavation/s, together with engineering material such as sub-base and drainage materials (e.g. recovered aggregate etc), landscaping materials or any other materials imported for service trenches etc, to the point in time that the validation report is issued.

Validation of the works will occur progressively throughout the remediation program. Details in relation to the above are outlined in the following subsections:

5.3.1 Site Establishment

The remediation contractor is to establish on site as required to facilitate the remediation. Consideration must be given to the work sequence and extent of remediation/excavation so that the site establishment (e.g. site sheds, fencing, access points etc) does not inhibit the remediation works.

The validation consultant must be advised if any soil, gravel or engineering materials (e.g. DGB, roadbase etc) are to be imported for the site establishment works. These must be validated by the validation consultant in accordance with Section 6 of this RAP to confirm they are suitable to be imported to site.

5.3.2 Demolition of Buildings and Structures, and Removal of Piles of Demolition Rubble

Any hazardous building materials in the existing buildings and structures on the site as identified in the HAZMAT report (see Section 2.1), must be removed in accordance with the relevant codes and standards prior to removal and or demolition. A clearance certificate is to be obtained by the remediation/demolition contractor following the removal of any hazardous materials.

All waste from the buildings and structures is to be disposed to facilities that are licenced by the NSW EPA to accept the waste. The remediation/demolition contractor is to maintain adequate records and retain all documentation for such activities including:

- A summary register including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with waste disposal docket numbers;
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations); and
- Disposal dockets for the waste. Legible dockets are to be provided for all waste materials so they can be reconciled with the register.

The above information is to be supplied to the validation consultant for assessment and inclusion in the site validation report.

Following demolition and removal of all buildings and structures and piles of demolition rubble at the site, the validation consultant/LAA must undertake an asbestos clearance and provide an asbestos clearance certificate.

In addition, the inspection of these areas must include observations to the potential for odours and/or soil staining that may be indicators of unexpected contamination. The consultant/LAA must assess the visual consistency of fill across these areas and with that encountered in the vicinity of these areas during the DSI. A hold point must be recorded in the remediation contractors programme so that this occurs and any identified issues can be managed accordingly.

In the event of an unexpected find, reference is to be made to the contingency plan outlined in Section 7 of this RAP.

5.3.3 Remediation Details – Excavation/Fill Removal Around Buildings & Structures

The ACM and lead impacted surficial fill in the remediation area around the buildings and structures is to be excavated, initially, to a vertical depth of 0.1m and across the full horizontal extent of the remediation area (refer to Figure 2 in Appendix A). The approximate remediation area is ~3,600m². The procedure for excavation of the ACM and lead impacted fill around the buildings and structures (Zone C) is outlined in the following table:

Table 5-2: Remediation Details – Excavation and disposal of ACM and Lead Impacted Fill (in-situ fill)

Step	Primary Role/Responsibility	Procedure
1.	Remediation Contractor	<u>Site management and Underground Services:</u> The remediation contractor is to take steps to ensure the site management plan in this RAP (and the AMP) is implemented for the remediation works. All underground services are to be appropriately disconnected or rerouted to facilitate the works.

Step	Primary Role/Responsibility	Procedure																																	
2.	Remediation Contractor / Asbestos Contractor	<u>Establish asbestos related controls and arrange licenses and tracking requirements</u> Prior to the commencement of any excavation, the AMP must be reviewed and implemented, including but not limited to actioning the following items: • A Class B licenced asbestos removal contractor must be engaged for the work; • Notification is to be lodged with SafeWork NSW for the asbestos in fill/soil removal works; • Register with NSW EPA WasteLocate for the transport of asbestos waste. Other notifications may also be required depending on the waste classification of the fill; • Asbestos fibre air monitoring must be undertaken for all ACM related remediation works; and • An asbestos removal control plan (ARCP) must be prepared by the asbestos removal contractor for the works. All work is to be undertaken with regards to the Safe Work Australia Code of Practice: How to Safely Remove Asbestos (2020)¹⁹.																																	
3.	Remediation Contractor / Asbestos Contractor	<u>Personal Protective Equipment (PPE) and Work Health and Safety (WHS):</u> Confirm PPE and WHS requirements prior to commencement of remediation works. All personnel involved in the remediation works must wear appropriate PPE as specified in the AMP and ARCP.																																	
4.	Remediation contractor	<u>Mark-out of remediation area around the buildings and structures:</u> The remediation contractor is to mark out the remediation area using star pickets, tape and signage in accordance with the AMP. The area should be easily identifiable based on the site features and can be marked out approximately using the scaled image attached as Figure 2 in Appendix A. This area can be delineated around the outer test pits of the area. Coordinates listed below: <table border="1"> <thead> <tr> <th>TP reference</th><th>Easting</th><th>Northing</th></tr> </thead> <tbody> <tr> <td>TP213</td><td>302222.6570</td><td>6169212.6043</td></tr> <tr> <td>TP214</td><td>302193.4587</td><td>6169219.4933</td></tr> <tr> <td>TP222</td><td>302258.7443</td><td>6169234.9137</td></tr> <tr> <td>TP232</td><td>302265.6333</td><td>6169264.1120</td></tr> <tr> <td>TP233</td><td>302236.4350</td><td>6169271.0010</td></tr> <tr> <td>TP256</td><td>302241.4131</td><td>6169223.6135</td></tr> <tr> <td>TP258</td><td>302182.1028</td><td>6169237.1953</td></tr> <tr> <td>TP261</td><td>302189.2201</td><td>6169266.9460</td></tr> <tr> <td>TP263</td><td>302225.2376</td><td>6169288.9358</td></tr> <tr> <td>TP264</td><td>302195.6900</td><td>6169296.0502</td></tr> </tbody> </table>	TP reference	Easting	Northing	TP213	302222.6570	6169212.6043	TP214	302193.4587	6169219.4933	TP222	302258.7443	6169234.9137	TP232	302265.6333	6169264.1120	TP233	302236.4350	6169271.0010	TP256	302241.4131	6169223.6135	TP258	302182.1028	6169237.1953	TP261	302189.2201	6169266.9460	TP263	302225.2376	6169288.9358	TP264	302195.6900	6169296.0502
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5	Remediation Contractor / Asbestos Contractor	<u>Removal of in-situ contaminated fill from the remediation area:</u> Excavation of the ACM and lead impacted area will be undertaken in accordance with the AMP and as follows: • Submit an application to dispose the fill (in accordance with the assigned waste classification) to a landfill licensed by the NSW EPA to receive the waste and obtain authorisation to dispose; • Excavation is to occur by removing/scraping back the surficial fill to a depth of 0.1m starting in one corner of the remediation area, and loading the excavated material directly into a truck. The truck must be loaded within the remediation area footprint, adjacent to the area being excavated. This process should continue across																																	

¹⁹ Safe Work Australia (2020). *Code of Practice How to Safely Remove Asbestos*. (referred to as CoP How to Safely Remove Asbestos) (July 2020)

Step	Primary Role/Responsibility	Procedure
		the entire remediation area, working away from the starting point, ensuring that once an area is excavated, the area is not driven over again by machinery or trucks, or used as a load out area again. This is to minimise the potential for cross-contamination; • Dispose of the excavated material in accordance with the assigned waste classification (refer to Section 3.4), to the receiving licensed landfill facility; and • All documents including landfill dockets and waste consignment records/tracking records etc must be retained and forwarded to the client and validation consultant for inclusion into the validation report.
6.	Validation Consultant / Asbestos Contractor	<u>Validation of excavation base:</u> • Once the fill is removed to a minimum depth of 0.1m across the entire remediation area, a surface clearance inspection of the area is to be undertaken by the validation consultant/LAA and the validation consultant is to obtain validation samples in accordance with the validation plan in Section 6 of this RAP; and • If the validation fails, the base of the area should be chased/scraped out until the validation is successful.
7.	Remediation contractor	<u>Reinstatement of remedial excavations:</u> Following successful validation of the surficial fill removal in the remediation area, the area may need to be reinstated with clean material to achieve the required levels. This reinstatement is to occur using only clean site won material, or clean imported material validated in accordance with Section 6.

The detailed validation plan relevant to the above items is provided in Section 6.

5.3.4 Remediation Details – Removal of ACM Impacted Stockpiles

The procedure for remediation of the ACM impacted stockpiles (SP5, SP6, SP7 and SP10, refer to Figure 2) is outlined below:

Table 5-3: Remediation Details – Removal of ACM Impacted Stockpiles (SP5, SP6, SP7 and SP10)

Step	Primary Role/Responsibility	Procedure
1.	Remediation Contractor / Asbestos Contractor	<u>Establish Asbestos Related Controls and Arrange Licenses and Tracking Requirements</u> As per Step 2 Section 5.3.3.
2.	Remediation Contractor / Asbestos Contractor	<u>PPE and WHS:</u> As per Step 3 Section 5.3.3.
3.	Remediation contractor	<u>Mark-out of stockpiles:</u> The remediation contractor is to mark out the locations/extents of the stockpiles using star pickets, tape and appropriate signage in accordance with the AMP. The stockpiles should be easily identifiable based on the site features, their size and shape, and can be marked out approximately using the scaled image attached as Figure 2 in Appendix A.

Step	Primary Role/Responsibility	Procedure
4	Remediation Contractor / Asbestos Contractor	<u>Removal of ACM impacted stockpiles:</u> Excavation and removal of the stockpiles will be undertaken in accordance with the AMP and as follows: • Submit an application to dispose the fill (in accordance with the assigned waste classification) to a landfill licensed by the NSW EPA to receive the waste and obtain authorisation to dispose; • An asbestos load-out area is to be established adjacent to the stockpiles. The load-out area is to be covered in geotextile to minimise the potential for cross-contamination of the ground surface adjacent to the remediation area; • Each stockpile is to be excavated so the material is completely removed and so there are no remnants of the stockpile at the ground surface. The excavated material is to be loaded directly into trucks; • The geofabric is to be carefully removed from the loadout area on completion of excavating all stockpiles and is to be disposed of in the final load of waste soil (or separately as asbestos waste in accordance with the AMP); • The excavated material is to be disposed of in accordance with the assigned waste classification (refer to Section 3.4) to the receiving licenced landfill facility; and • All documents including landfill dockets and waste consignment records/tracking records etc must be retained and forwarded to the client and validation consultant for inclusion into the validation report.
5.	Validation Consultant / Asbestos Assessor	<u>Surface clearance following stockpile removal:</u> Once the stockpiles have been entirely removed, a surface clearance inspection of each stockpile footprint is to be undertaken by a the LAA/validation consultant in accordance with the validation plan outlined in Section 6. Validation sampling of the base of SP5 must also occur in relation to heavy metals, as outlined in the validation plan.

The detailed validation plan relevant to the above items is provided in Section 6.

5.3.5 Remediation Details – Removal of Heavy Metal Impacted Stockpiles

The procedure for remediation of the remaining heavy metal-impacted stockpiles (SP1, SP2, SP4 and SP11, refer to Figure 2) is outlined below. It is noted that SP5 was also impacted by heavy metals, however, this stockpile will be remediated in accordance with Section 5.3.3 as SP5 also contained ACM.

Table 5-4: Remediation Details – Removal of Heavy Metal impacted Stockpiles (SP1, SP2, SP4 and SP11)

Step	Primary Role/Responsibility	Procedure
1.	Remediation Contractor	<u>PPE and WHS:</u> All personnel involved in the remediation works must wear appropriate PPE as specified in the WHS plan.
2.	Remediation contractor	<u>Mark-out of stockpiles:</u> The remediation contractor is to mark out the stockpiles using star pickets and flagged bunting. The areas should be easily identifiable based on the site features and can be marked out approximately using the scaled image attached as Figure 2 in Appendix A.

Step	Primary Role/Responsibility	Procedure
3.	Remediation Contractor	<u>Removal of heavy metal impacted stockpiles:</u> Excavation and removal of SP1, SP2, SP4 and SP11 will be undertaken as follows: • Submit an application to dispose the fill (in accordance with the assigned waste classification) to a landfill licensed by the NSW EPA to receive the waste and obtain authorisation to dispose; • A load-out area is to be established adjacent to the stockpiles. The load-out area is to be covered in geotextile to minimise the potential for cross-contamination of the ground surface adjacent to the remediation area; • Each stockpile is to be excavated so the material is completely removed and so there are no remnants of the stockpile remaining at the ground surface. The excavated material is to be loaded and all excavated material is to be placed directly into trucks; • Dispose in accordance with the assigned waste classification (refer to Section 3.4) to the receiving licenced landfill facility; and • All documents including landfill dockets etc should be retained and forwarded to the client and validation consultant for inclusion into the validation report.
4.	Validation Consultant	<u>Validation of Excavation Base:</u> • Once the stockpiles have been entirely removed, the validation consultant is to obtain validation samples in accordance with the validation plan in Section 6 of this RAP; and • If the validation fails, the area should be chased/scraped back until the validation is successful.

The detailed validation plan relevant to the above items is provided in Section 0.

5.4 Remediation Documentation

The remediation contractor must retain all documentation associated with the remediation, including but not limited to:

- Asbestos management documentation, including all relevant notifications, clearances and monitoring reports;
- Waste disposal dockets (see below);
- Photographs of remediation works;
- Waste tracking documentation (see below and the example waste tracking form in Appendix D); and
- Imported materials documentation (see below and the example imported material tracking form in Appendix D).

Copies of these documents must be forwarded to the project manager and the validation consultant for assessment and inclusion in the validation report.

5.4.1 Waste

All waste removed from the site is to be appropriately classified, tracked and managed in accordance with the relevant guidelines and regulations. The remediation contractor is to maintain adequate records and retain all documentation for waste disposal activities including:

- A summary register (in Microsoft Excel format) including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with the associated waste classification documentation and the waste disposal docket numbers;
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations – e.g. WasteLocate consignment records); and
- Disposal dockets for the waste (i.e. weighbridge dockets for each load).

Any soil waste classification documentation is to be prepared in accordance with the reporting requirements specified by the NSW EPA as outlined in the Consultants Reporting Guidelines and the NSW EPA Waste Classification Guidelines (2014). The documentation must be reviewed by the validation consultant (if the documentation is prepared by others) prior to the waste leaving the site.

A review of the disposal facility's Environment Protection Licence (EPL) issued under the Protection of the Environment Operations (POEO) Act (1997)²⁰ is to be undertaken to assess whether the facility is appropriately licensed to receive the waste.

The above information is to be provided to the validation consultant for inclusion in the validation report. The register must be set up at the beginning of the project and provided to the validation consultant regularly (i.e. weekly) so the details can be checked and any rectification of the record keeping process can occur in a timely manner.

5.4.2 Imported Materials Register

The remediation contractor is to maintain, for the duration of the project, an imported material register. This must include a register (in Microsoft Excel format) with details of each imported material type, supplier details, summary record of where the imported materials were placed on site, and importation docket numbers and a tally of quantities (separated for each import stream). Dockets for imported materials are to be provided electronically so these can be reconciled with the register.

Examples of imported materials for this project may include but would not be limited to: site preparation materials (e.g. DGB, 40/70, material to create the piling platform etc); and landscaping materials such as topsoil garden mixes, mulches etc.

The above information is to be provided to the validation consultant for inclusion in the validation report. The register be set up at the beginning of the project and provided to the validation consultant regularly (i.e. weekly) so the details can be checked and any rectification of the record keeping process can occur in a timely manner.

²⁰NSW Government, (1997)). *Protection of Environment Operations Act*. (referred to as POEO Act 1997)

6 VALIDATION PLAN

Validation is necessary to demonstrate that remedial measures described in the RAP have been successful and that the site is suitable for the intended land use. The sampling program for the validation is outlined in Section 6.1. This is the minimum requirement based on the remedial strategies provided. Additional validation sampling may be required based on observations made during remediation or in the event of an unexpected find.

6.1 Validation Sampling and Documentation

The following subsections outline the validation requirements for each aspect of the remediation:

6.1.1 Demolition of Buildings and structures - Post Demolition Clearance Inspection

The remediation/demolition contractor is to appropriately document the removal and management of hazardous building materials from the site and provide clearance certificates for the demolition as noted previously.

Surface clearance inspections of all building and structure footprints and the footprints of piles of demolition materials (refer to HAZMAT) must be undertaken by the LAA/validation consultant prior to the commencement of fill/soil excavation. Asbestos clearance certificates are to be documented for the purpose of the validation. Validation sampling is not proposed.

The validation consultant is to document the areas photographically and confirm that all buildings and structures (including existing piles demolition materials) have been removed.

6.1.2 Excavation/Fill Removal – Around Buildings and Structures

The validation consultant must be present and must witness the excavation of the remediation area and load out of fill material.

Following removal of the surficial fill from across the remediation area, a surface clearance inspection of the remediation area must be undertaken by the LAA/validation consultant and an asbestos clearance certificate must be provided.

Once the asbestos clearance is complete (assuming it is successful), soil samples are to be collected from the base of the remedial excavation (i.e. across the site surface following fill removal), on a 18m x 18m grid. This number of locations met the minimum sampling density for hotspot identification, as outlined in the NSW EPA Contaminated Sites Sampling Design Guidelines (1995)²¹ based on the area of remediation. Based on the above density, the following hotspot diameters have been calculated:

- Circular hotspot diameter with a 95% confidence level (K value of 0.59) – 21.2m; and
- Elliptical hotspot diameter with a 95% confidence level (K value of 0.9) – 32.4m along the long dimension and 16.2m along the short dimension.

²¹ NSW EPA, (1995), *Contaminated Sites Sampling Design Guidelines*. (referred to as EPA Sampling Design Guidelines 1995)

Samples are to be analysed for lead and appropriate QA/QC samples are to be obtained and analysed as outlined in the validation SAQP. A soil description of each sample is to be recorded.

Validation sampling of the excavation walls at the boundaries of the remediation area is not proposed. However, the validation consultant is to confirm (visually and via measurement) that the removal of fill occurs to the lateral and vertical extent as indicated in Section 3.3.1 and on Figure 2 in Appendix A.

The validation consultant is to document the excavation photographically.

6.1.3 Excavation/Removal of ACM Impacted Stockpiles

The validation consultant must be present and must witness the excavation and load out of the ACM impacted stockpiles.

Following removal of the ACM impacted stockpiles, a surface clearance inspection of the stockpile footprints must be undertaken by the LAA/validation consultant and an asbestos clearance certificate must be provided.

Validation sampling is not proposed, except for SP5 as noted below.

The validation consultant is to document the areas photographically and confirm that the entire stockpile has been removed.

6.1.4 Excavation/Removal of Heavy Metal Impacted Stockpiles

The validation consultant must be present and must witness the excavation and load out of the heavy metal impacted stockpiles.

Following removal of the stockpiles, samples are to be collected from the stockpile footprints (i.e. across the site surface following fill stockpile removal), at a rate of one sample per footprint for the smaller stockpiles (<25m³) and three samples for the larger stockpiles (>25m³). Samples from SP1, SP2, SP4, and SP11 are to be analysed for copper. Samples from SP5 are also to be obtained and analysed for copper and zinc. A soil description of each sample is to be recorded, along with the sample location.

The validation consultant is to document the areas photographically and confirm that each stockpile was removed.

6.1.5 Imported Materials

Any imported materials must be validated to confirm they will not impact site suitability (from a contamination viewpoint, until the time the site validation report is issued. Imported materials may include, but would not necessarily be limited to backfill materials (e.g. VENM), engineering materials for site preparation (e.g. DGB) etc.

A minimum of three samples from each imported material type must be collected and analysed for heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRHs, BTEX, PAHs, OCP/OPPs,

PCBs and asbestos (500ml NEPM 2013 analysis). Additional analysis may be required depending on the material type and/or history of the material/source site, at the validation consultant's discretion.

Material is to be inspected upon importation by the validation consultant to confirm it is free of visible/olfactory indicators of contamination and is consistent with documentation. Photographic documentation and an inspection log are to be maintained. A minimum of one inspection must occur for each imported material type from each different source.

Where applicable (e.g. where the imported material is a waste or recycled product), documentation must be supplied to the validation consultant to confirm the material has been classified with reference to a relevant Resource Recovery Order/Exemption and/or the NSW EPA waste classification guidelines.

6.2 Validation Assessment Criteria and Data Assessment

The VAC to be adopted for the validation assessment are outlined in the table below:

Table 6-1: Validation Assessment Criteria (VAC)

Validation Aspect	VAC		
Surface clearance inspections/asbestos clearance certificates.	Visual - confirmation that observed site surfaces are free of visible asbestos/ACM.		
Excavation/fill removal in area around buildings and structures	The VAC are as follows:		
	Contaminant of Concern	VAC (mg/kg)	Source of VAC and Rationale
	ACM	NA	Visual - confirmation that excavation base and walls are free of visible asbestos/ACM, and confirmation that fill has been removed to the nominated depth of 0.1mBGL.
	Lead	600	Consistent with the 'Recreational C' health-based SAC presented in NEPM (2013). This is considered to be an appropriate clean-up criterion for lead in soil for land that is within hospital grounds.
	Data should initially be assessed as above or below the VAC. Statistical analysis may be applied (to lead) if deemed appropriate by the consultant and undertaken in accordance with the NEPM 2013.		
Stockpile Removal	The VAC are as follows:		
	Contaminant of Concern	VAC (mg/kg)	Source of VAC and Rationale
	ACM	NA	Visual - confirmation that stockpile footprint is free of visible asbestos/ACM, and confirmation that entire stockpile has been removed.

Validation Aspect	VAC		
	Copper	230	Calculated EIL as presented in the DSI (based on NEPM 2013). Protective of ecological receptors.
	Zinc	670	Calculated EIL as presented in the DSI (based on NEPM 2013). Protective of ecological receptors.
Imported materials	All results for imported materials are to be compared to the HIL-C and HSL-A/HSL-B criteria to check they do not pose a risk to human health in the proposed land use scenario. Results for VENM and other imported materials will need to be consistent with expectations for those materials. VENM must meet the definition presented in the waste classification guidelines and the POEO Act 1997. Recycled materials are to meet the criteria of the relevant exemption/order under which they are produced. Aesthetics: soils to be free of staining and odours.		

6.3 Validation Sampling, Analysis and Quality Plan (SAQP)

Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) should be clearly outlined and assessed as part of the validation process. A framework for the DQO and DQI process is outlined below and are to be reflected in the validation report.

DQOs have been broadly established for the validation with regards to the seven-step process outlined NEPM (2013). The seven steps include the following which are detailed further in the following subsections:

- State the problem;
- Identify the decisions/goal of the study;
- Identify information inputs;
- Define the study boundary;
- Develop the analytical approach/decision rule;
- Specify the performance/acceptance criteria; and
- Optimise the design for obtaining the data.

DQIs are to be assessed based on field and laboratory considerations for precision, accuracy, representativeness, completeness and comparability.

6.3.1 Step 1 - State the Problem

Validation data is required to demonstrate that the remediation is successful and that the site is suitable for the proposed land use described in Section 1.1.

6.3.2 Step 2 - Identify the Decisions of the Study

The remediation goal, aims and objectives are defined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Was the remediation undertaken in accordance with the RAP?
- If there were any deviations, what were these and how do they impact the outcome of the validation?
- Are any of the validation results above the VAC?
- Is the site suitable for the proposed development from a contamination viewpoint?

6.3.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Existing relevant data from previous reports;
- Site information, including site observations and inspections;
- Validation sampling of soil following surficial fill removal, and of imported materials as required;
- Laboratory analysis of soils; and
- Field and laboratory QA/QC data.

6.3.4 Step 4 - Define the Study Boundary

The remediation and validation will be confined to the remediation areas as shown on Figure 2 in Appendix A. Remediation is anticipated to extend to 0.1mBGL around the buildings and structures and to the site surface in stockpile footprints.

6.3.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

6.3.5.1 Data Assessment/VAC

The validation data will be collected and assessed in accordance with Sections 6.1 and 6.2. The following decision rules will apply:

- If all concentrations of the contaminants of concern are below the VAC, then the data will be compared directly to the VAC without statistical analysis;
- If the concentration of a contaminant of concern exceeds the VAC, then statistical analysis will be undertaken. This will include calculation of the 95% upper confidence limit (UCL) value for the data set, with regards to the NEPM (2013) framework and other relevant guidelines made under the CLM Act 1997. The UCL will be considered acceptable where the UCL is below the VAC, the standard deviation of the data is less than 50% of the VAC and none of the individual concentrations are more than 250% of the VAC.

6.3.5.2 Field and Laboratory QA/QC

Appropriate QA/QC samples are to be obtained during the validation (where applicable) and analysed for the same suite of contaminants as the primary samples. As a minimum, QA/QC sampling is to include duplicates (5% inter-laboratory and 5% intra-laboratory) and trip blanks. Rinsate samples must be obtained if re-usable sampling equipment is utilised. Trip spikes are required at a rate of one sample per batch, where the batch includes analysis for volatiles (i.e. light fraction TRHs and BTEX).

DQIs for field and laboratory QA/QC samples are defined below:

Field Duplicates

Acceptable targets for precision of field duplicates will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Trip Blanks, Trip Spikes and Rinsates

Acceptable targets for trip blank and rinsate samples will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to the reference material used as the blank medium.

Acceptable targets for the trip spike samples will be 70-130% recovery.

Laboratory QA/QC

The suitability of the laboratory data will be assessed against the laboratory QA/QC criteria. These criteria are developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the typical limits is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics; and
- 60-140% recovery acceptable for organics.

Surrogate Spikes

- 60-140% recovery acceptable for general organics.

Method Blanks

- All results less than PQL.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence will be reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is to be undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, the validation consultant is to adopt the most conservative concentration reported.

6.3.5.3 Appropriateness of PQLs

The PQLs of the analytical methods are to be considered in relation to the VAC to confirm that the PQLs are less than the VAC. In cases where the PQLs are greater than the VAC, a discussion of this is to be provided.

6.3.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is to be undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For the validation assessment, the null hypothesis (H_0) is that the 95% UCL for the contaminant of concern is greater than the VAC. The alternative hypothesis (H_A) is that the 95% UCL for the contaminant of concern is less than the VAC.

Potential outcomes include Type I and Type II errors as follows:

- Type I error of determining that the soil is acceptable for the proposed land use when it is not (wrongly rejects true H_0), includes an alpha (α) risk of 0.05; and
- Type II error of determining that the soil is unacceptable for the proposed land use when it is (wrongly accepts false H_0), includes beta (β) risk of 0.2.

6.3.7 Step 7 - Optimise the Design for Obtaining Data

The design is to be optimised via the collection of validation data to demonstrate the success of the key aspects of the remediation.

6.3.8 Sampling Plan

The proposed sampling plan for the validation is described in Section 6.1.

6.4 Validation Report

As part of the site validation process, a site validation report will be prepared by the validation consultant. The report will present the results of the validation assessment and will be prepared in accordance with the Consultants Reporting Guidelines.

7 CONTINGENCY PLAN

A review of the proposed remediation works has indicated that the greatest risks that may affect the success of the remediation include unexpected finds, validation failure or the inability to remove contaminated fill due to an unavoidable site constraint. A contingency plan for the remediation is provided below and this must be implemented:

7.1 Unexpected Finds

7.1.1 Existing buildings and structures / Aboriginal Heritage Constraints

Following demolition of existing buildings and structures/stripping of fill material in the Aboriginal Heritage area, the validation consultant must undertake a visual inspection of these areas. A hold point remains until the **validation consultant** confirms there are no visual or olfactory indicators of unexpected finds in these areas. This is considered to be a hold point until the validation consultant confirms there are no visual or olfactory indicators of contamination present.

7.1.2 General Site Areas

Residual hazards that may exist at the site would generally be expected to be detectable through visual or olfactory means. At this site, these types of hazards may include: friable types of asbestos in soil in the remediation area, other occurrences of suspected asbestos outside of the remediation area, odorous or stained hydrocarbon impacted soils etc. The procedure to be followed in the event of an unexpected find is presented below:

- In the event of an unexpected find, all work in the immediate vicinity must cease and the remediation contractor must contact the validation consultant and the project manager;
- Temporary barricades should be erected to isolate the area from access to workers;
- The validation consultant is to attend the site, adequately characterise the contamination and provide advice in relation to site management and remediation. In the event that remediation differs from the procedures outlined in this RAP, an addendum RAP must be prepared in consultation with the project stakeholders and submitted to the consent authority; and
- Contamination is to be remediated and validated in accordance with the advice provided, and the results should be included in the validation report.

7.2 Importation Failure for VENM or other Imported Materials

Where material to be imported onto the site does not meet the importation VAC detailed in Section 6.2, the material should not be imported. Alternative material must be sourced that meets the importation requirements.

7.3 Validation Failure

In the event that a validation sample exceeds the VAC, additional material can either be 'chased out' and disposed off-site, then the area re-validated. Or alternatively, a risk-based assessment of the data can occur in order to establish whether the exceedance poses a risk in the context of the proposed land use. The developer and project manager must be advised and approvals must be sought prior to chasing out and

disposing of additional material if this is in excess of the waste quantity estimates provided previously in this RAP.

7.4 Alternative Strategy / Contingency for Failure of Remediation Strategy

Considering the contaminants of concern and the simplicity of the proposed remediation strategy, the potential for the remediation strategy to fail is considered to be low.

JKE consider that a possible contingency option for the site remediation could include a 'cap and contain' strategy whereby surplus material is buried within a containment cell. The feasibility of this option would require careful consideration and the planners would need to endorse a strategy that requires a LTEMP. JKE recommend that the client carefully consider the feasibility of this option compared to the current proposal. A RWP or addendum RAP must also be prepared where relevant to document the cap and contain requirements.

8 SITE MANAGEMENT PLAN FOR REMEDIATION WORKS

The information outlined in this section of the RAP is for the remediation work only. The client should make reference to the development consent for specific site management requirements for the overall development of the site.

8.1 Construction Phase AMP

The AMP must be reviewed and implemented during the remediation works that involve disturbance of asbestos.

8.2 Interim Site Management

The following interim measures should be adopted immediately:

- Implement the AMP;
- Construct fencing as required to secure the remediation areas; and
- Appropriate warning signage should be erected as required.

8.3 Project Contacts

Emergency procedures and contact telephone numbers should be displayed in a prominent position at the site entrance gate and within the main site working areas. The available contact details are summarised in the following table:

Table 8-1: Project Contacts

Role	Company	Contact Details
Project Manager	Savills Australia	James Collins E: jcollins@savills.com.au P: 0402 418 109
Remediation Contractor	To be appointed	-
Validation Consultant	TBC	-
Certifier	To be appointed	-
NSW EPA	Pollution Line	131 555
Emergency Services	Ambulance, Police, Fire	000

8.4 Security

Appropriate fencing should be installed as required to secure and isolate the remediation areas. Warning signs should be erected, which outline the PPE required for the specific remediation work.

8.5 Timing and Sequencing of Remediation Works

The anticipated sequence of remediation works is outlined in Section 5.3. It is expected that remediation and validation will occur prior to the commencement of construction of the built form of the development. The client must engage with the consent authority so that the remediation can occur as outlined in these steps.

8.6 Site Soil and Water Management Plan

The remediation contractor is to prepare a detailed soil and water management plan prior to the commencement of site works. Silt fences must be used to control the surface water runoff at all appropriate locations of the site and appropriate measures are to be implemented to manage soil/water disturbance to the satisfaction of the regulator/consent authority. Reference should be made to the consent conditions for further details.

All stockpiled materials are to be placed within an erosion containment boundary with silt fences and sandbags employed to limit sediment movement. The containment area should be located away from drainage lines/low-points, gutters, stormwater pits and inlets and the site boundary. No liquid waste or runoff should be discharged to the stormwater or sewerage system without the approval of the appropriate authorities.

Vehicle access to the site shall be stabilised to prevent the tracking of sediment onto the roads and footpath. Soil, earth, mud or similar materials must be removed from the roadway by sweeping, shovelling, or a means other than washing, on a daily basis or as required. Soil washings from wheels shall be collected and disposed of in a manner that does not pollute waters.

Reference must also be made to the AMP in this regard.

8.7 Noise and Vibration Control Plan

The guidelines for minimisation of noise on construction sites outlined in AS-2460 (2002)²² should be adopted. Other measures specified in the consent conditions should also be complied with. Noise producing machinery and equipment should only be operated between the hours approved by the consent authority (refer to consent documents).

All practicable measures should be taken to reduce the generation of noise and vibration to within acceptable limits. In the event that short-term noisy operations are necessary, and where these are likely to affect residences, notifications should be provided to the relevant authorities and the residents by the project manager, specifying the expected duration of the noisy works.

8.8 Dust Control Plan

All practicable measures should be taken to reduce dust emanating from the site. Factors that contribute to dust production are:

- Wind over a cleared surface;

²² Australian Standard, (2002). *AS2460: Acoustics - Measurement of the Reverberation Time in Rooms*.

- Wind over stockpiled material; and
- Movement of machinery in unpaved areas.

Visible dust should not be present at the site boundary. Measures to minimise the potential for dust generation include:

- Use of water sprays on unsealed or exposed soil surfaces;
- Covering of stockpiled materials and excavation faces (particularly during periods of site inactivity and/or during windy conditions) or alternatively the erection of hessian fences around stockpiled soil or large exposed areas of soil;
- Establishment of dust screens consisting of a 2m high shade cloth or similar material secured to a chain wire fence;
- Maintenance of dust control measures to keep the facilities in good operating condition;
- Stopping work during strong winds;
- Loading or unloading of dry soil as close as possible to stockpiles to prevent spreading of loose material around the development area; and
- Geofabric/geotextile could be placed over exposed soils in the event that excavation is staged.

If stockpiles are to remain on-site or soil remains exposed for a period of longer than several days, dust monitoring should be undertaken at the site. If excessive dust is generated all site activities should cease until either wind conditions are more acceptable or a revised method of excavation/remediation is developed. Reference is also to be made to the construction phase AMP in this regard.

Dust is also produced during the transfer of material to and from the site. All material should be covered during transport and should be properly disposed of on delivery. No material is to be left in an exposed, un-monitored condition.

All equipment and machinery should be brushed or washed down before leaving the site to limit dust and sediment movement off-site. In the event of prolonged rain and lack of paved areas all vehicles should be washed down prior to exit from the site, and any soil or dirt on the wheels of the vehicles removed. Water used to clean the vehicles should be collected and tested prior to appropriate disposal under the relevant waste classification guidelines.

Reference must also be made to the AMP in this regard.

8.9 Dewatering

Temporary dewatering is not anticipated to be required as part of the remediation works. If a rain event occurs during excavation, this water should be managed appropriately on site in accordance with the remediation contractor's soil and water management plan. This water should not be pumped to stormwater or sewer unless a prior application is made and this is approved by the relevant authorities.

8.10 Air Monitoring

Reference is to be made to the AMP for details regarding asbestos air fibre monitoring. Air monitoring must only be carried out by personnel registered and accredited by NATA (National Association of Testing Authorities). Filter analysis must only be carried out within a NATA certified laboratory. The monitoring results must conform to the requirements of the NOHSC Guidance note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)].

A monitoring program will be used to assess whether the control procedures being applied are satisfactory and that criteria for airborne asbestos fibre levels are not being exceeded. The following levels will be used as action criteria during the air monitoring:

- <0.01 Fibres/ml: Work procedures deemed to be successful;
- 0.01 to 0.02 Fibres/ml: Inspection of the site and review of procedures; and
- >0.02 Fibres/ml: Stop work, inspection of the site, review of procedures, clean-up, rectification works where required and notify the relevant regulator.

8.11 Odour Control Plan

All activities undertaken at the site should be completed in a manner that minimises emissions of smoke, fumes and vapour into the atmosphere and any odours arising from the works or stockpiled material should be controlled. Control measures may include:

- Maintenance of construction equipment so that exhaust emissions comply with the Clean Air Regulations issued under the POEO Act 1997;
- Demolition materials and other combustible waste should not be burnt on site;
- The spraying of a suitable proprietary product to suppress any odours that may be generated by excavated materials; and
- Use of protective covers (e.g. builder's plastic).

All practicable measures should be taken to reduce fugitive emissions emanating from the site so that associated odours do not constitute a nuisance and that the ambient air quality is not adversely impacted.

Unacceptable odours are not expected to be generated during the remediation works. Should it be deemed necessary, the following odour management plan should be implemented to limit the exposure of site personnel and surrounding residents to unpleasant odours:

- Excavation and stockpiling of material should be scheduled during periods with low winds if possible;
- A suitable proprietary product could be sprayed on material during excavation and following stockpiling to reduce odours (subject to an appropriate assessment of the product by the validation consultant);
- All complaints from workers and neighbours should be logged and a response provided. Work should be rescheduled as necessary to minimise odour problems;
- The site foreman should consider the following odour control measures:
 - reduce the exposed surface of the odorous materials;
 - time excavation activities to reduce off-site nuisance (particularly during strong winds); and
 - cover exposed excavation faces overnight or during periods of low excavation activity.

- If continued complaints are received, alternative odour management strategies should be considered and implemented.

8.12 Work Health and Safety (WHS) Plan

A site specific WHS plan must be prepared by the remediation contractor for all work to be undertaken at the site. The WHS plan should meet all the requirements outlined in SafeWork NSW WHS regulations.

As a minimum requirement, personnel must wear appropriate protective clothing, including long sleeve shirts, long trousers, steel cap boots and hard hats. Additional asbestos-related PPE will be required for works involving asbestos, as outlined in the AMP and relevant ARCPs. Washroom and lunchroom facilities should also be provided to allow workers to remove potential contamination from their hands and clothing prior to eating or drinking.

8.13 Waste Management

Prior to commencement of remedial works and excavation for the proposed development, the remediation contractor should develop a waste management or recycling plan to minimise the amount of waste produced by the site. Consideration should be given to re-use of clean material wherever possible and the plan must incorporate the requirements documented in Section 5.4.1 of this RAP.

8.14 Incident Management Contingency

The validation consultant must be contacted if any unexpected conditions are encountered at the site. This should enable the scope of remedial/validation works to be adjusted as required. Similarly, if any incident occurs at the site, the validation consultant should be advised to assess potential impacts on contamination conditions and the remediation/validation timetable.

8.15 Hours of Operation

Hours of operation should be between those approved by the consent authority under the development approval process.

8.16 Community Consultation and Complaints

The remediation contractor should provide details for managing community consultation and complaints within their construction environmental management plan (CEMP).

9 CONCLUSIONS

Investigations at the site by JKE and others have identified ACM on the site surface and lead in fill at concentrations that exceeded the human health-based land use criteria. Existing fill stockpiles on the site were also found to contain ACM, and copper and zinc above the ecological-based land use criteria.

The proposed remediation strategy includes excavation and off-site disposal of asbestos and lead impacted fill and stockpiles from the site. This will remove the source of contamination and will render the site suitable for the proposed hospital development from a contamination viewpoint.

JKE is of the opinion that the site can be made suitable for the proposed development via remediation and the implementation of this RAP. Site validation reporting is to occur as specified in this RAP to document that the procedures have been followed and to demonstrate that the site is suitable on completion of the remediation.

The RAP has met the objectives outlined in Section 1.2.

9.1 Regulatory Requirements

The regulatory requirements applicable for the remediation are discussed in the following table:

Table 9-1: Regulatory Requirement

Guideline / Legislation / Policy	Applicability
SEPP Resilience and Hazards 2021	At this stage it has not been confirmed whether the remediation will occur as part of the main development, or prior to the development. If the remediation was to occur prior to the development and if for example the demolition of buildings was able to occur under a complying development consent, the remediation may be able to be undertaken as Category 2 remediation works. Relevant notifications and approvals would need to be provided/obtained in accordance with Chapter 4 of SEPP Resilience and Hazards 2021. In the event that the remediation is to occur as part of the proposed development, it is our understanding that this may result in the remediation being Category 1 given it will be approved as part of the State Significant Development Application. We recommend that the client's expert planner assess these options and provide their planning advice in relation to the remediation category and approvals/planning pathway.
POEO Act 1997	Section 143 of the POEO Act 1997 states that if waste is transported to a place that cannot lawfully be used as a waste facility for that waste, then the transporter and owner of the waste are each guilty of an offence. The transporter and owner of the waste have a duty to ensure that the waste is disposed of in an appropriate manner. Appropriate waste tracking is required for all waste that is disposed off-site. Activities should be carried out in a manner which does not result in the pollution of waters.

Guideline / Legislation / Policy	Applicability
POEO (Waste) Regulation 2014	Part 7 of the POEO Waste Regulation 2014 set outs the requirements for the transportation and management of asbestos waste and Clause 79 of the POEO Waste Regulation requires waste transporters to provide information to the NSW EPA regarding the movement of any load in NSW of more than 10 square meters of asbestos sheeting, or 100 kilograms of asbestos waste. To fulfil these legal obligations, asbestos waste transporters must use WasteLocate.
SafeWork NSW Code of Practice: How to manage and control asbestos in the workplace (2020)	Sites with asbestos become a 'workplace' when work is carried out there and require a register and AMP. This would apply to both the demolition and remediation works. Appropriate SafeWork NSW notification will be required for licensed (e.g. Class A or Class B) asbestos removal works or handling.

10 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors

This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions

Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data

Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations

Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report

Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

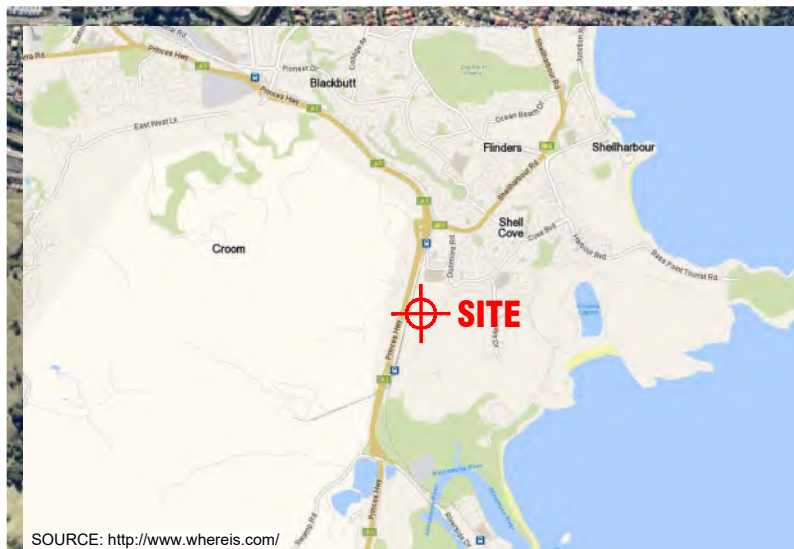
To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.



Appendix A: Report Figures



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

Title:

SITE LOCATION PLAN

Location:

86 DUNMORE ROAD, SHELLHARBOUR, NSW

Project No:

E34300PTrpt4-RAP

Figure No:

1

This plan should be read in conjunction with the Environmental report.

JKEnvironments





Appendix B: Selected Proposed Development Plans

***Unrelated plans have been removed from this appendix for the purposes of the REF –
at the request of HI/Savills.***

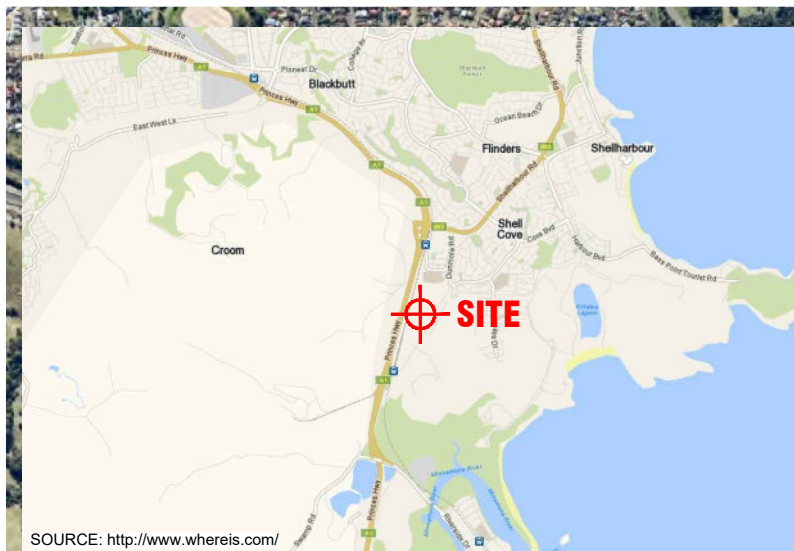


Appendix C: JKE DSI Figures and Data Tables



Detailed (Stage 2) Site Investigation Figures

Detailed (Stage 2) Site Investigation
December 2021



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

Title:

SITE LOCATION PLAN

Location:

86 DUNMORE ROAD, SHELLHARBOUR, NSW

Project No:

E34300PT

Figure No:

1

This plan should be read in conjunction with the Environmental report.

JKEnvironments



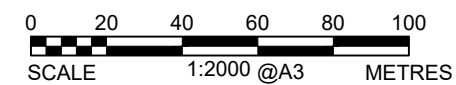
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- APPROXIMATE WIDER PROPERTY BOUNDARY
- ABORIGINAL AREAS (EMM REPORT)
- + BH/MW(Fill Depth) BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- TP(Fill Depth) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

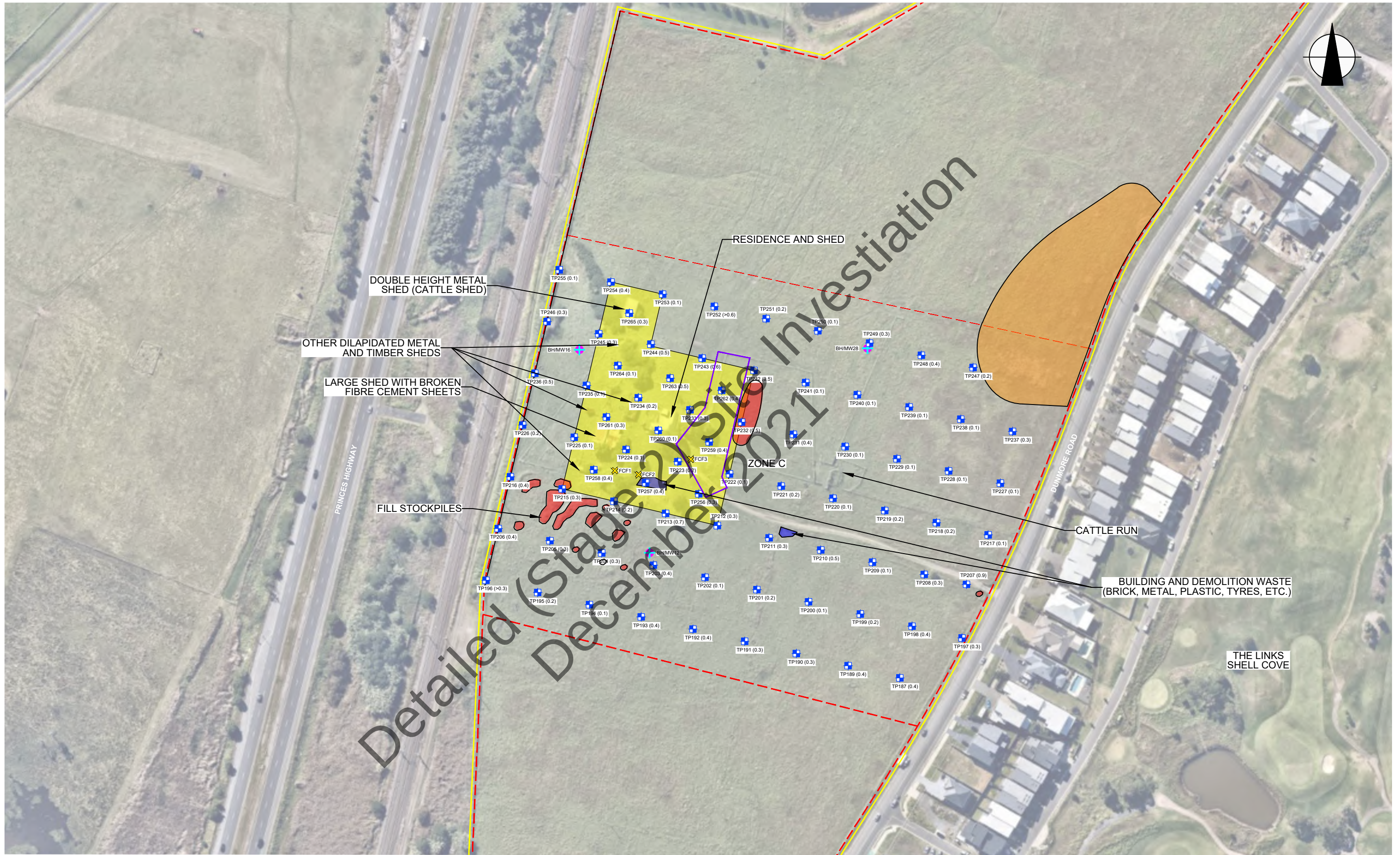


This plan should be read in conjunction with the Environmental report.

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Location: 86 DUNMORE ROAD, SHELLHARBOUR, NSW		
Project No: E34300PTcpt2		Figure No: 2a
JKEnvironments		



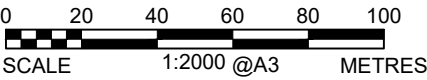
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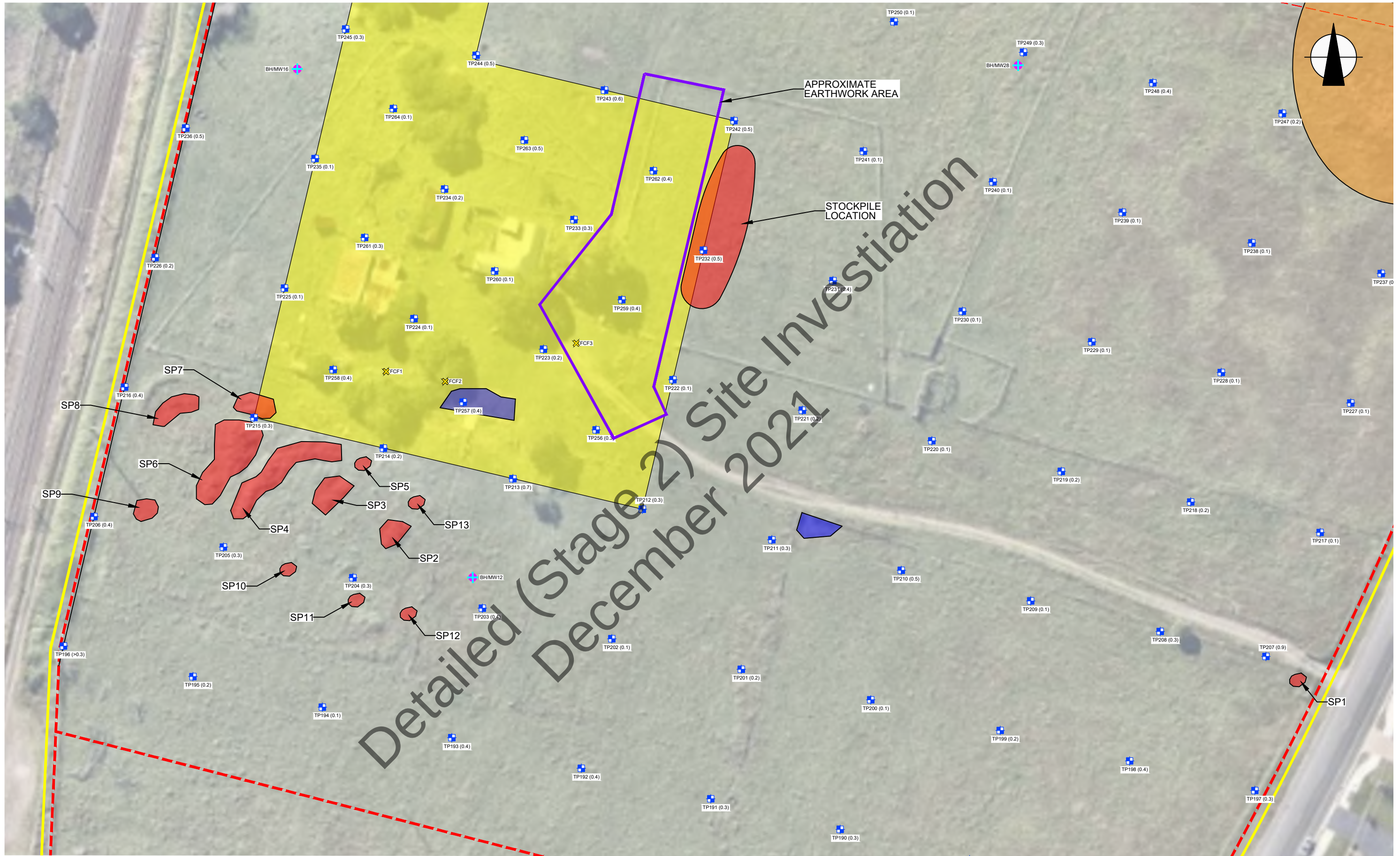


This plan should be read in conjunction with the Environmental report.

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Location: 86 DUNMORE ROAD, SHELLHARBOUR, NSW		
Project No: E34300PTrpt2		Figure No: 2c
JKEnvironments		



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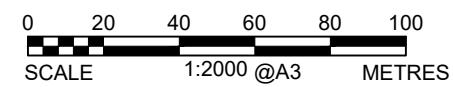
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- TP(Fill Depth) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

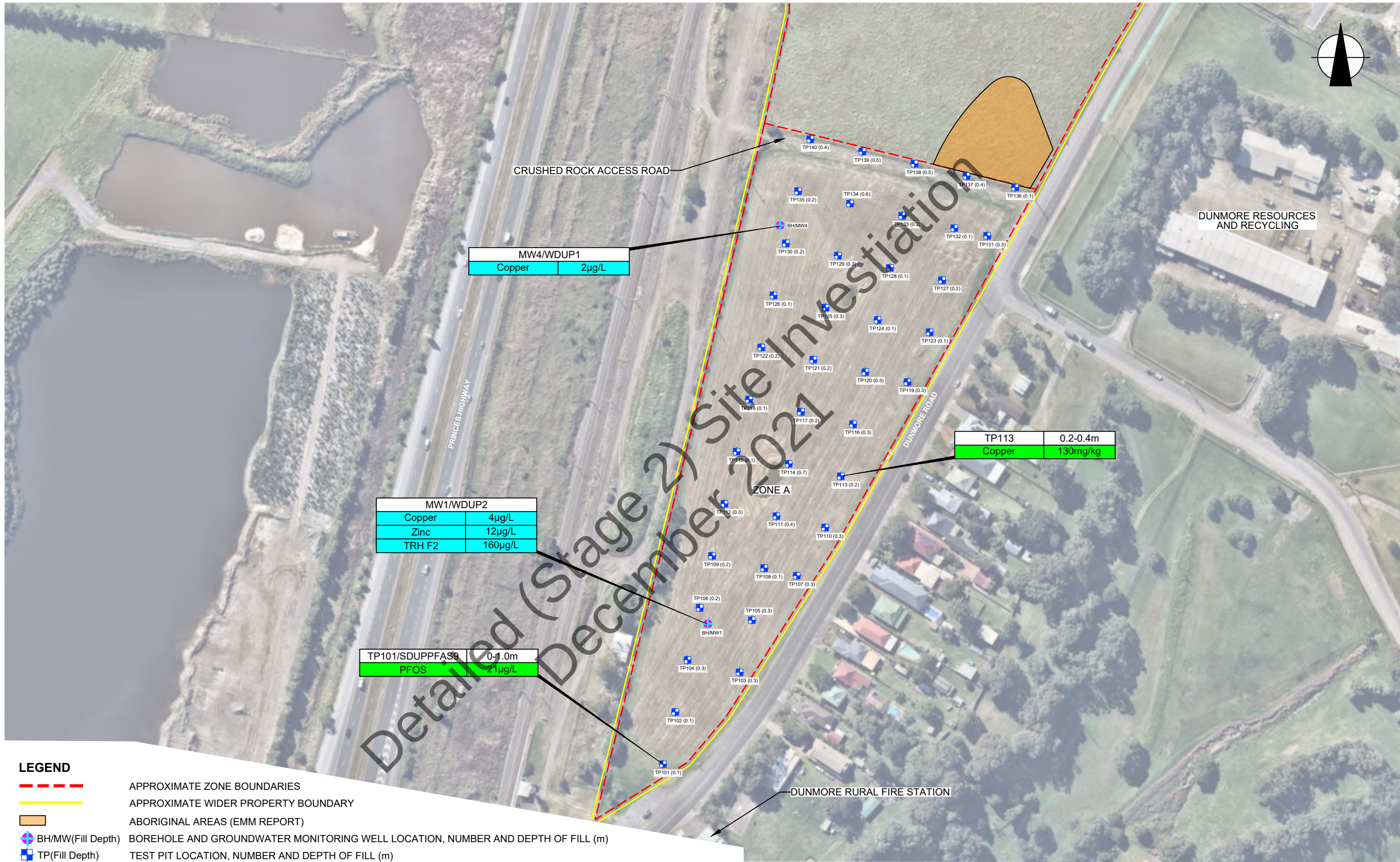


This plan should be read in conjunction with the Environmental report.

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Location: 86 DUNMORE ROAD, SHELLHARBOUR, NSW	
Project No: E34300PTrpt2	Figure No: 2d
JKEnvironments	



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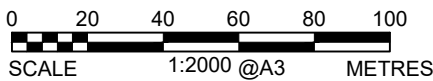


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- APPROXIMATE WIDER PROPERTY BOUNDARY
- ABORIGINAL AREAS (EMM REPORT)
- BH/MW(Fill Depth) BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- TP(Fill Depth) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

SAMPLE ID	DEPTH (metres)	SOIL/SURFACE SAMPLE EXCEEDANCE
CHEMICAL	CONCENTRATION	
SAMPLE ID	-	GROUNDWATER SAMPLE EXCEEDANCE
CHEMICAL	CONCENTRATION (µg/L)	
		SURFACE/SOIL CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK
		GROUNDWATER CONTAMINATION ABOVE SAC FOR GROUNDWATER SAC

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM



This plan should be read in conjunction with the Environmental report.

Title: ZONE A SAC EXCEEDANCE LOCATION PLAN

Location: 86 DUNMORE ROAD, DUNMORE, NSW

Project No: E34300PTrpt2

Figure No: 3a

JKEnvironments



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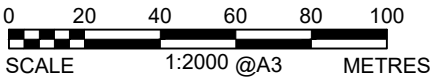


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- TP(Fill Depth) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

SAMPLE ID	-	GROUNDWATER SAMPLE EXCEEDANCE
CHEMICAL	CONCENTRATION (µg/L)	
		GROUNDWATER CONTAMINATION ABOVE SAC FOR GROUNDWATER SAC

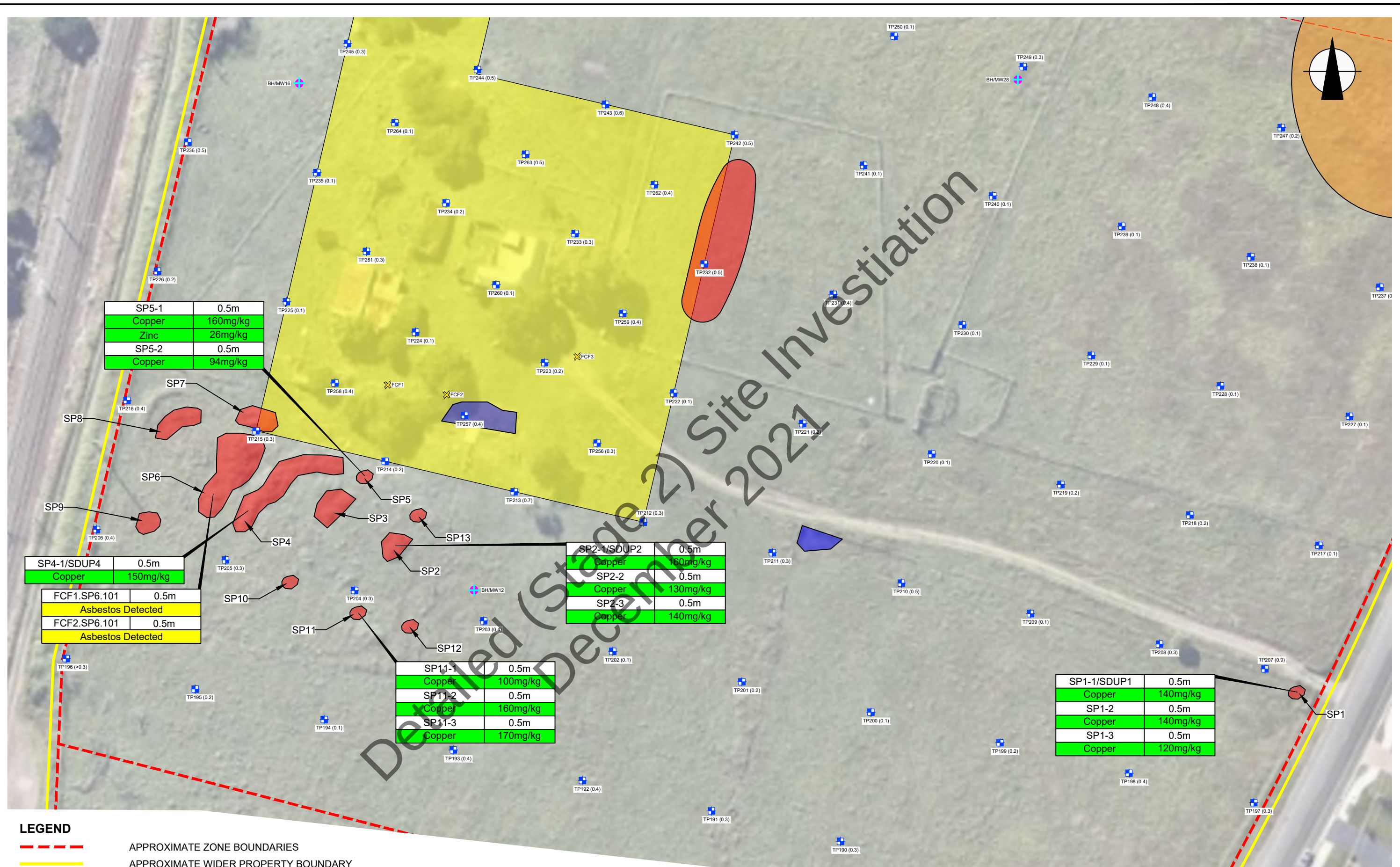
AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM



This plan should be read in conjunction with the Environmental report.

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Location: 86 DUNMORE ROAD, DUNMORE, NSW	
Project No: E34300PTrpt2	Figure No: 3b
JKEnvironments	



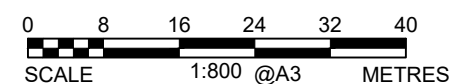


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|---|---|
|  | APPROXIMATE ZONE BOUNDARIES |
|  | APPROXIMATE WIDER PROPERTY BOUNDARY |
|  BH/MW(Fill Depth) | BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) |
|  TP(Fill Depth) | TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) |

SAMPLE ID	DEPTH (metres)	SOIL/SURFACE SAMPLE EXCEEDANCE
CHEMICAL	CONCENTRATION	
		SURFACE/SOIL CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK
		SURFACE/SOIL CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM



This plan should be read in conjunction with the Environmental report.

Title: **ZONE C STOCKPILE SAC EXCEEDANCE
LOCATION PLAN**

Location: 86 DUNMORE ROAD, DUNMORE, NSW

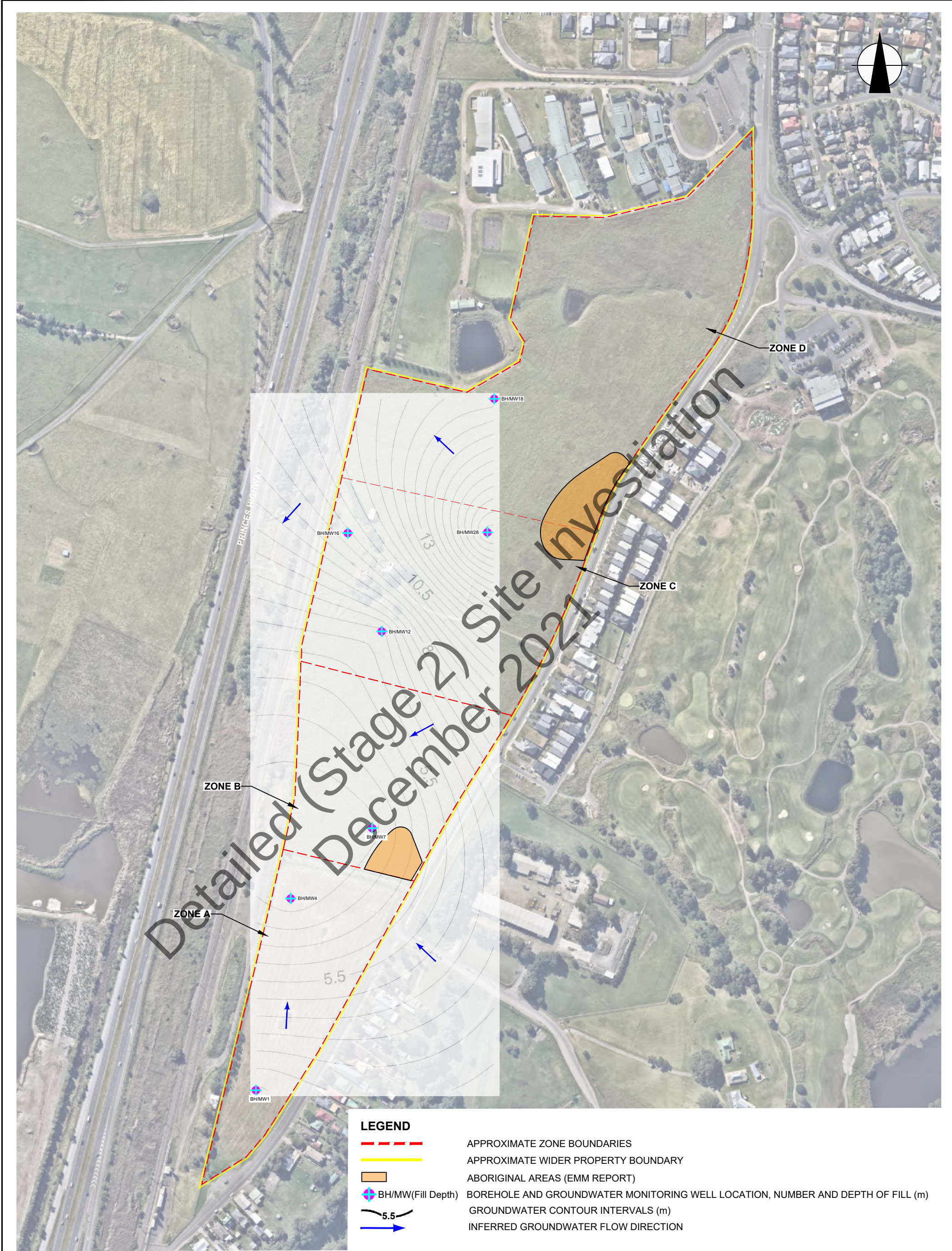
Project No:	E34300PTrpt2
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Figure No: 3c-SP

JKEnvironments



PLOT DATE: 30/11/2021 11:38:45 AM DWG FILE: S:\6 EIS\SC EIS JOBS\3400\SE\34300PT DUNMORE\CA\E34300TRPT2.DWG



LEGEND

APPROXIMATE ZONE BOUNDARIES

APPROXIMATE WIDER PROPERTY BOUNDARY

■

ABORIGINAL AREAS (EMM REPORT)

● BH/MW(Fill Depth)

BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)

5.5

GROUNDWATER CONTOUR INTERVALS (m)

→

INFERRED GROUNDWATER FLOW DIRECTION

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 40 80 120 160 200
SCALE 1:4000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title:

GROUNDWATER CONTOUR PLOT

Location:

86 DUNMORE ROAD, DUNMORE, NSW

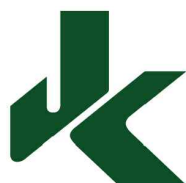
Project No:

E34300PTrpt2

Figure No:

4

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**Soil Batch 1 –
Contamination Data Summary Tables**

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCl after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{POS}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLs:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

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TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

				C _p -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
POL - Envirolab Services				25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category				HSL A/B: LOW/HIGH DENSITY RESIDENTIAL							
Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category							
TP137	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP137 - [LAB_DUP]	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP137	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP137 - [LAB_DUP]	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP138	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP138	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP139	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP140	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP140	0.4-0.6	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP141	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP142	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP143	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP143	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP144	0-0.1	F: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP144	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP145	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP146	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP147	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP147 - [LAB_DUP]	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP148	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP151	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP152	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP152	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP153	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP154	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP157	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP158	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP159	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP160	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP161	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP161 - [LAB_DUP]	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP163	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP163	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP164	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP164	0.4-0.5	Silty gravelly clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP165	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP167	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP168	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP169	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP171	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP172	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP172 - [LAB_DUP]	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP173	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP174	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP175	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP176	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP176	0.1-0.3	FILL: silty gravelly clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP177	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP179	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP179	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0.1
TP180	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP180 - [LAB_DUP]	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP180	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP182	0-0.1	FILL: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP182	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
TP182 - [LAB_DUP]	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	0
SDUP1	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP2	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP3	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP4	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP5	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP6	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP7	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP8	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
SDUP9	-	FILL	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	-
Total Number of Samples					65	65	65	65	65	65	56
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	0.1
Concentration above the SAC					VALUE						
Concentration above the PQL					Bold						
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below											

HSL SOIL ASSESSMENT CRITERIA											
Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category	C _p -C ₁₀ (F1)	>C ₁₀ -C ₁₀₀ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
TP137	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP137 - [LAB_DUP]	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP137	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP137 - [LAB_DUP]	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP138	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP138	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP139	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP140	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP140	0.4-0.6	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP141	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP142	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP143	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP143	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP144	0-0.1	F: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP144	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP145	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP146	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP147	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP147 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP148	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP151	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP152	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP152	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP153	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP154	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP157	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP158	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP159	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP160	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP161	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP161 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP163	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP164	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP164	0.4-0.5	Silty gravelly clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP165	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP167	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP169	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP171	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP171	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP172	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP172 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP173	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP174	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP175	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP176	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP176	0.1-0.3	Fill: silty gravelly clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP177	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP179	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP179	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP180	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP180 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP180	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP182	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP182	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP182 - [LAB_DUP]	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P1	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P2	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P3	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P4	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P5	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P6	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P7	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P8	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3
SOU1P9	-	Fill	0m to <1m	Sand	45	110	0.5	160	55	40	3

TABLE 53
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			$C_{10}-C_{10}$ (F1) plus BTEX	$>C_{10}-C_{10}$ (F2) plus naphthalene	$>C_{10}-C_{10}$ (F3)	$>C_{10}-C_{10}$ (F4)
PQL - Envirrolab Services			25	50	100	100
NEPM 2013 Land Use Category			RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE			
Sample Reference	Sample Depth	Soil Texture				
TP137	0-0.1	Fine	<25	<50	<100	<100
TP137 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP137	0.5-0.7	Fine	<25	<50	<100	<100
TP137 - [LAB_DUP]	0.5-0.7	Fine	<25	<50	<100	<100
TP138	0-0.1	Fine	<25	<50	120	<100
TP138	0.5-0.7	Fine	<25	<50	<100	<100
TP139	0-0.1	Fine	<25	<50	<100	<100
TP140	0-0.1	Fine	<25	<50	<100	<100
TP140	0.4-0.6	Fine	<25	<50	<100	<100
TP141	0-0.1	Fine	<25	<50	<100	<100
TP142	0-0.1	Fine	<25	<50	<100	<100
TP143	0-0.1	Fine	<25	<50	<100	<100
TP143	0.5-0.7	Fine	<25	<50	<100	<100
TP144	0-0.1	Fine	<25	<50	<100	<100
TP144	0.5-0.7	Fine	<25	<50	<100	<100
TP145	0-0.1	Fine	<25	<50	<100	<100
TP146	0-0.1	Fine	<25	<50	<100	<100
TP147	0-0.1	Fine	<25	<50	<100	<100
TP147 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP148	0-0.1	Fine	<25	<50	<100	<100
TP151	0-0.1	Fine	<25	<50	<100	<100
TP152	0-0.1	Fine	<25	<50	<100	<100
TP152	0.5-0.7	Fine	<25	<50	<100	<100
TP153	0-0.1	Fine	<25	<50	<100	<100
TP154	0-0.1	Fine	<25	<50	<100	<100
TP157	0-0.1	Fine	<25	<50	<100	<100
TP158	0-0.1	Fine	<25	<50	<100	<100
TP159	0-0.1	Fine	<25	<50	<100	<100
TP160	0-0.1	Fine	<25	<50	<100	<100
TP161	0-0.1	Fine	<25	<50	<100	<100
TP161 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP163	0-0.1	Fine	<25	<50	<100	<100
TP163	0.3-0.5	Fine	<25	<50	<100	<100
TP164	0-0.1	Fine	<25	<50	<100	<100
TP164	0.4-0.5	Fine	<25	<50	<100	<100
TP165	0-0.1	Fine	<25	<50	<100	<100
TP167	0-0.1	Fine	<25	<50	<100	<100
TP168	0-0.1	Fine	<25	<50	<100	<100
TP169	0-0.1	Fine	<25	<50	<100	<100
TP171	0-0.1	Fine	<25	<50	<100	<100
TP172	0-0.1	Fine	<25	<50	<100	<100
TP172 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP173	0-0.1	Fine	<25	<50	<100	<100
TP174	0-0.1	Fine	<25	<50	<100	<100
TP175	0-0.1	Fine	<25	<50	<100	<100
TP176	0-0.1	Fine	<25	<50	<100	<100
TP176	0.1-0.3	Fine	<25	<50	<100	<100
TP177	0-0.1	Fine	<25	<50	<100	<100
TP179	0-0.1	Fine	<25	<50	<100	<100
TP179	0.3-0.5	Fine	<25	<50	<100	<100
TP180	0-0.1	Fine	<25	<50	<100	<100
TP180 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP180	0.3-0.5	Fine	<25	<50	<100	<100
TP182	0-0.1	Fine	<25	<50	<100	<100
TP182	0.3-0.5	Fine	<25	<50	<100	<100
TP182 - [LAB_DUP]	0.3-0.5	Fine	<25	<50	<100	<100
SDUP1	-	Fine	<25	<50	<100	<100
SDUP2	-	Fine	<25	<50	<50	<100
SDUP3	-	Fine	<25	<50	<100	<100
SDUP4	-	Fine	<25	<50	<50	<100
SDUP5	-	Fine	<25	<50	<100	<100
SDUP6	-	Fine	<25	<50	<50	<100
SDUP7	-	Fine	<25	<50	<100	<100
SDUP8	-	Fine	<25	<50	<50	<100
SDUP9	-	Fine	<25	<50	<100	<100
Total Number of Samples			65	65	65	65
Maximum Value			<PQL	<PQL	120	<PQL
Concentration above the SAC			VALUE			
Concentration above the PQL			Bold			

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Soil Texture	$C_{10}-C_{10}$ (F1) plus BTEX	$>C_{10}-C_{10}$ (F2) plus naphthalene	$>C_{10}-C_{10}$ (F3)	$>C_{10}-C_{10}$ (F4)
TP137	0-0.1	Fine	800	1000	3500	10000
TP137 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP137	0.5-0.7	Fine	800	1000	3500	10000
TP137 - [LAB_DUP]	0.5-0.7	Fine	800	1000	3500	10000
TP138	0-0.1	Fine	800	1000	3500	10000
TP138	0.5-0.7	Fine	800	1000	3500	10000
TP139	0-0.1	Fine	800	1000	3500	10000
TP140	0-0.1	Fine	800	1000	3500	10000
TP140	0.4-0.6	Fine	800	1000	10000	10000
TP141	0-0.1	Fine	800	1000	3500	10000
TP142	0-0.1	Fine	800	1000	3500	10000
TP143	0-0.1	Fine	800	1000	3500	10000
TP143	0.5-0.7	Fine	800	1000	3500	10000
TP144	0-0.1	Fine	800	1000	3500	10000
TP144	0.5-0.7	Fine	800	1000	3500	10000
TP145	0-0.1	Fine	800	1000	3500	10000
TP146	0-0.1	Fine	800	1000	3500	10000
TP147	0-0.1	Fine	800	1000	3500	10000
TP147 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP148	0-0.1	Fine	800	1000	3500	10000
TP151	0-0.1	Fine	800	1000	3500	10000
TP152	0-0.1	Fine	800	1000	3500	10000
TP152	0.5-0.7	Fine	800	1000	3500	10000
TP153	0-0.1	Fine	800	1000	3500	10000
TP154	0-0.1	Fine	800	1000	3500	10000
TP157	0-0.1	Fine	800	1000	3500	10000
TP158	0-0.1	Fine	800	1000	3500	10000
TP159	0-0.1	Fine	800	1000	3500	10000
TP160	0-0.1	Fine	800	1000	3500	10000
TP161	0-0.1	Fine	800	1000	3500	10000
TP161 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP163	0-0.1	Fine	800	1000	3500	10000
TP163	0.3-0.5	Fine	800	1000	3500	10000
TP164	0-0.1	Fine	800	1000	3500	10000
TP164	0.4-0.5	Fine	800	1000	3500	10000
TP165	0-0.1	Fine	800	1000	3500	10000
TP167	0-0.1	Fine	800	1000	3500	10000
TP168	0-0.1	Fine	800	1000	3500	10000
TP169	0-0.1	Fine	800	1000	3500	10000
TP171	0-0.1	Fine	800	1000	3500	10000
TP172	0-0.1	Fine	800	1000	3500	10000
TP172 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP173	0-0.1	Fine	800	1000	3500	10000
TP174	0-0.1	Fine	800	1000	3500	10000
TP175	0-0.1	Fine	800	1000	3500	10000
TP176	0-0.1	Fine	800	1000	3500	10000
TP176	0.1-0.3	Fine	800	1000	3500	10000
TP177	0-0.1	Fine	800	1000	3500	10000
TP179	0-0.1	Fine	800	1000	3500	10000
TP179	0.3-0.5	Fine	800	1000	3500	10000
TP180	0-0.1	Fine	800	1000	3500	10000
TP180 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP180	0.3-0.5	Fine	800	1000	3500	10000
TP182	0-0.1	Fine	800	1000	3500	10000
TP182	0.3-0.5	Fine	800	1000	3500	10000
TP182 - [LAB_DUP]	0.3-0.5	Fine	800	1000	3500	10000
SDUP1	-	Fine	800	1000	3500	10000
SDUP2	-	Fine	800	1000	3500	10000
SDUP3	-	Fine	800	1000	3500	10000
SDUP4	-	Fine	800	1000	3500	10000
SDUP5	-	Fine	800	1000	3500	10000
SDUP6	-	Fine	800	1000	3500	10000
SDUP7	-	Fine	800	1000	3500	10000
SDUP8	-	Fine	800	1000	3500	10000
SDUP9	-	Fine	800	1000	3500	10000

TABLE S4 SOIL LABORATORY RESULTS COMPARED TO DIRECT CONTACT CRITERIA All data in mg/kg unless stated otherwise											
Analyte		C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₃₄	>C ₃₄ -C ₄₀	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 - Direct contact Criteria		5,100	3,800	5,300	7,400	120	18,000	5,300	15,000	1,900	
Site Use		RECREATIONAL - DIRECT SOIL CONTACT									
Sample Reference	Sample Depth										
TP137	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP137 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP137	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP137 - [LAB_DUP]	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP138	0-0.1	<25	<50	120	<100	<0.2	<0.5	<1	<3	<1	0
TP138	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP139	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP140	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP140	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP141	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP142	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP143	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP143	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP144	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP144	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP145	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP146	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP147	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP147 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP148	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP151	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP152	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP152	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP153	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP154	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP157	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP158	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP159	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP160	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP161	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP161 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP163	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP163	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP164	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP164	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP165	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP167	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP168	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP169	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP171	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP172	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP172 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP173	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP174	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP175	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP176	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP176	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP177	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP179	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP179	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0.1
TP180	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP180 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP180	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP182	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP182	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP182 - [LAB_DUP]	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP1	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP2	-	<25	<50	<50	<100	<0.2	<0.5	<1	<1	<1	-
SDUP3	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP4	-	<25	<50	<50	<100	<0.2	<0.5	<1	<1	<1	-
SDUP5	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP6	-	<25	<50	<50	<100	<0.2	<0.5	<1	<1	<1	-
SDUP7	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP8	-	<25	<50	<50	<100	<0.2	<0.5	<1	<1	<1	-
SDUP9	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples		65	65	65	65	65	65	65	65	65	56
Maximum Value		<PQL	<PQL	120	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	0.1
Concentration above the SAC		VALUE									
Concentration above the PQL		Bold									

Concentration above the SAC	VALUE
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TABLE 56
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																ESLs				
				pH	CEC (cmol/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DOT	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₈ (F2)	>C ₁₈ -C ₂₄ (F3)	>C ₂₄ -C ₄₀ (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P	
POL - Envisolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05	
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	Sample Depth	Sample Description	Soil Texture																					
TP137	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	82	28	4	67	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP137-[LAB_DUP]	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	81	26	4	70	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP137	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	3	59	8	3	12	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP137-[LAB_DUP]	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	3	60	12	4	19	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP137-[TRIPLICATE]	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	4	77	10	4	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP138	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	81	28	2	78	<1	<0.1	<25	<50	120	<100	<0.2	<0.5	<1	<3	1.9	
TP138	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	2	130	9	2	20	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP139	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	4	79	18	2	35	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP140	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	91	24	3	34	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP140	0.4-0.6	Silty clay	Fine	6.13	15.54	NA	<4	2	96	6	2	13	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP141	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	8	77	21	4	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP142	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	10	76	21	3	22	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP143	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	9	85	21	4	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP143	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	5	65	10	1	8	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP144	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	57	10	2	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.09	
TP144	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	3	130	7	2	17	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP145	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	65	21	3	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP146	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	38	17	1	12	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP147	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	67	18	3	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP147-[LAB_DUP]	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	67	19	3	23	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP148	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	78	24	4	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP151	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	8	42	15	2	9	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP152	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	60	22	3	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.06	
TP152	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	7	130	13	2	8	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP153	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	68	21	3	29	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP154	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	57	18	3	12	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP157	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	68	25	4	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP158	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	44	24	3	94	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP159	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	42	18	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP160	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	51	21	4	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP161	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	56	31	4	45	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP161-[LAB_DUP]	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	61	38	5	48	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP163	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	8	77	31	4	35	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.05	
TP163	0.3-0.5	Silty clay	Fine	6.13	15.54	NA	<4	5	95	12	2	10	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP164	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	67	28	4	36	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.05	
TP164	0.4-0.5	Silty gravelly clay	Fine	6.13	15.54	NA	<4	6	130	19	5	29	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP165	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	42	28	2	22	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP167	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	69	22	4	31	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP168	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	65	23	4	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP169	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	7	48	25	4	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP171	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	8	52	25	4	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP172	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	7	60	27	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP172-[LAB_DUP]	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	6	44	24	2	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP173	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	40	19	2	19	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP174	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	46	18	2	16	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP175	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	34	21	4	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP176	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	36	21	3	16	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP176	0.1-0.3	F: silty gravelly clay	Fine	6.13	15.54	NA	<4	18	41	35	2	9	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP177	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	8	49	25	5	47	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP179	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	10	45	27	5	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP179	0.3-0.5	Silty clay	Fine	6.13	15.54	NA	<4	3	150	17	8	40	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05	
TP180	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	6	9	72	25	4	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.05
TP180-[LAB_DUP]	0-0.1	F: silty clay	Fine	6.13	15.54	NA	<4	5	9	74	25	5	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1		

TABLE S7 SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES All data in mg/kg unless stated otherwise																											
			HEAVY METALS							PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES	
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled	C ₆ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₂₈	C ₂₉ -C ₃₆	Total C ₁₀ -C ₃₆	Benzene	Toluene	Ethyl benzene	Total Xylenes		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL	10,000	10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL	10,000	10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL	40,000	40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL	40,000	40,000	72	2,078	4,320	7,200	-
Sample Reference	Sample Depth	Sample Description																									
TP137	0-0.1	F: silty clay	<4	<0.4	5	82	28	<0.1	4	67	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP137 - [LAB_DUP]	0-0.1	F: silty clay	<4	<0.4	5	81	26	<0.1	4	70	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP137	0.5-0.7	Silty clay	<4	<0.4	3	59	8	<0.1	3	12	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP137 - [LAB_DUP]	0.5-0.7	Silty clay	<4	<0.4	3	60	12	<0.1	4	19	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP137 - [TRIPLICATE]	0.5-0.7	Silty clay	<4	<0.4	4	77	10	<0.1	4	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP138	0-0.1	F: silty clay	<4	<0.4	5	81	28	<0.1	2	78	15	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP138	0.5-0.7	Silty clay	<4	<0.4	2	130	9	<0.1	2	20	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP139	0-0.1	F: silty clay	<4	<0.4	4	79	18	<0.1	2	35	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP140	0-0.1	F: silty clay	<4	<0.4	6	91	24	<0.1	3	34	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP140	0.4-0.6	Silty clay	<4	<0.4	2	96	6	<0.1	2	13	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP141	0-0.1	F: silty clay	<4	<0.4	8	77	21	<0.1	4	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP142	0-0.1	F: silty clay	<4	<0.4	10	76	21	<0.1	3	22	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP143	0-0.1	F: silty clay	<4	<0.4	9	85	21	<0.1	4	27	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP143	0.5-0.7	Silty clay	<4	<0.4	4	65	10	<0.1	1	8	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP144	0-0.1	F: silty clay	<4	<0.4	6	57	21	<0.1	2	24	0.2	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP144	0.5-0.7	Silty clay	<4	<0.4	3	130	7	<0.1	2	17	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP145	0-0.1	Fill: silty clay	<4	<0.4	5	65	21	<0.1	3	24	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP146	0-0.1	Fill: silty clay	<4	<0.4	5	38	17	<0.1	1	12	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP147	0-0.1	Fill: silty clay	<4	<0.4	5	67	18	<0.1	3	21	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP147 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	5	67	19	<0.1	3	23	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP148	0-0.1	Fill: silty clay	<4	<0.4	7	78	24	<0.1	4	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP151	0-0.1	Fill: silty clay	<4	<0.4	8	42	15	<0.1	2	9	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP152	0-0.1	Fill: silty clay	<4	<0.4	6	60	22	<0.1	3	27	0.06	0.06	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP152	0.5-0.7	Silty clay	<4	<0.4	7	130	13	<0.1	2	8	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP153	0-0.1	Fill: silty clay	<4	<0.4	5	68	21	<0.1	3	29	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP154	0-0.1	Fill: silty clay	<4	<0.4	6	57	18	<0.1	3	12	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP157	0-0.1	Fill: silty clay	<4	<0.4	6	68	25	<0.1	4	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP158	0-0.1	Fill: silty clay	<4	<0.4	7	44	24	<0.1	3	94	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP159	0-0.1	Fill: silty clay	<4	<0.4	5	42	18	<0.1	3	25	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP160	0-0.1	Fill: silty clay	<4	<0.4	7	51	21	<0.1	4	28	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP161	0-0.1	Fill: silty clay	<4	<0.4	7	56	31	<0.1	4	45	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP161 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	7	61	38																				

TABLE S8

SOIL LABORATORY TCLP RESULTS

All data in mg/L unless stated otherwise

	Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	B(a)P
PQL - Envirolab Services	0.05	0.01	0.01	0.03	0.0005	0.02	0.001
TCLP1 - General Solid Waste	5	1	5	5	0.2	2	0.04
TCLP2 - Restricted Solid Waste	20	4	20	20	0.8	8	0.16
TCLP3 - Hazardous Waste	>20	>4	>20	>20	>0.8	>8	>0.16
Sample Reference	Sample Depth	Sample Description					
TP138	0-0.1	F: silty clay	NA	NA	NA	NA	<0.001
Total Number of samples			0	0	0	0	1
Maximum Value			NA	NA	NA	NA	<PQL
General Solid Waste			VALUE				
Restricted Solid Waste			VALUE				
Hazardous Waste			VALUE				
Concentration above PQL			Bold				

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP:	National Environmental Management Plan
NSL:	No Set Limit
PFAS:	Per- and polyfluoroalkyl substances
PFHxS:	Perfluorohexanesulfonic acid
PFOA:	Perfluorooctanoic acid
PFOS:	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) October 2016

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	TP137 0-0.1	TP137 [LAB DUP] 0-0.1	TP137 0.8-0.9	TP152 0-0.1	TP152 1.0-1.1	TP163 0-0.1	TP163 0.9-1.0
PFAS Compound										
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Perfluorodecane sulfonic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	0.3	<0.2	0.3	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<10	<10	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<10	<10	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFAS	0.1	NSL	NSL	0.5	0.6	<0.1	0.6	<0.1	0.6	<0.1
Positive PFAS result PFAS result above the SAC Bold Bold										

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Public Open Space	TP137 0-0.1	TP137 [LAB DUP] 0-0.1	TP137 0.8-0.9	TP152 0-0.1	TP152 1.0-1.1	TP163 0-0.1	TP163 0.9-1.0
PFAS Compound									
Perfluorobutanesulfonic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.4	<0.4	<0.2	0.3	<0.2	0.3	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<10	<10	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<2	<2	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<2	<2	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<2	<2	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<2	<2	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<10	<10	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1,000	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFOS & PFOA	0.1	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFAS	0.1	NSL	0.5	0.6	<0.1	0.6	<0.1	0.6	<0.1
Positive PFAS result Bold PFAS result above the SAC Bold									

TABLE P3
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	SCC1	SCC2	TP137 0-0.1	TP137 [LAB DU] 0-0.1	TP137 0.8-0.9	TP152 0-0.1	TP152 1.0-1.1	TP163 0-0.1	TP163 0.9-1.0
PFAS Compound										
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	0.3	<0.2	0.3	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<10	<10	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamidethanol	1	NSL	NSL	<2	<2	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamidethanol	5	NSL	NSL	<10	<10	<5	<5	<5	<5	<5
MePerfluorooctanesulfonamidacetic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulfonamidacetic acid	0.2	NSL	NSL	<0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.5	0.6	<0.1	0.3	<0.1	0.3	<0.1
Total Positive PFAS	0.1	NSL	NSL	0.5	0.6	<0.1	0.6	<0.1	0.6	<0.1

Result above SCC1 Criteria **Bold**
Result above SCC2 Criteria **Bold**

TABLE P4
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	TP137 0-0.1	TP137 0-0.1	TP137 0.8-0.9	TP152 0-0.1	TP152 1.0-1.1	TP163 0-0.1	TP163 0.9-1.0
PFAS Compound										
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamidethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamidethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Result above TCLP1 Criteria Bold Result above TCLP2 Criteria Bold										



**Soil Batch 2 -
Contamination Data Summary Tables**

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCl after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{POS}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLs:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE S1 SOIL LABORATORY RESULTS COMPARED TO NEPM 2013. HIL-C 'Public open space; secondary schools; and footpaths'																										
All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)		TOTAL PCBs		ASBESTOS FIBRES		
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos	TOTAL PCBs	ASBESTOS FIBRES				
PQL - EnviroLab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100				
Site Assessment Criteria (SAC)			300	90	300	17000	600	80	1200	30000	300	3	10	340	400	10	70	400	10	250	1	Detected/Not Detected				
Sample Reference	Sample Depth	Sample Description																								
TP136	0-0.1	Fill: silty clay	<4	<0.4	6	57	25	<0.1	3	29	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected				
TP136 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	6	53	27	<0.1	3	30	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP136	0.1-0.3	Silty clay	<4	<0.4	4	220	12	<0.1	3	47	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP136 - [LAB_DUP]	0.1-0.3	Silty clay	<4	<0.4	5	190	14	<0.1	3	27	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP136 - [TRIPPLICATE]	0.1-0.3	Silty clay	<4	<0.4	5	140	14	<0.1	2	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP149	0-0.1	Fill: silty clay	5	<0.4	11	66	19	<0.1	4	14	2.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected				
TP149	0.1-0.3	Latite	<4	<0.4	3	62	5	<0.1	1	8	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP155	0-0.1	Fill: silty clay	4	<0.4	6	97	22	<0.1	5	43	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP156	0-0.1	Fill: silty clay	<4	<0.4	6	87	37	<0.1	3	45	4.3	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP156	0.1-0.3	Silty clay	<4	<0.4	6	100	18	<0.1	5	19	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP156	0.4-0.6	Silty clay	<4	<0.4	5	130	15	<0.1	2	11	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP162	0-0.1	Fill: silty clay	<4	<0.4	6	73	20	<0.1	5	32	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP170	0-0.1	Fill: silty clay	<4	<0.4	7	64	24	<0.1	5	28	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP178	0-0.1	Fill: silty clay	<4	<0.4	7	50	23	<0.1	3	40	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP183	0-0.1	Fill: silty clay	5	<0.4	11	40	18	<0.1	3	14	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP184	0-0.1	Fill: silty clay	<4	<0.4	6	38	15	<0.1	3	17	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP185	0-0.1	Fill: silty clay	<4	<0.4	7	47	19	<0.1	3	19	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP185 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	6	47	18	<0.1	3	19	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP186	0-0.1	Fill: silty clay	4	<0.4	8	80	19	<0.1	5	27	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP187	0-0.1	Fill: silty clay	7	<0.4	9	56	30	<0.1	4	33	2.7	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP187	0.4-0.5	Silty clay	<4	<0.4	8	110	16	<0.1	4	25	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP189	0-0.1	Fill: silty clay	<4	<0.4	8	43	20	<0.1	3	19	1.7	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP189	0.4-0.6	Silty clay	<4	<0.4	11	140	14	<0.1	4	18	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP190	0-0.1	Fill: silty clay	<4	<0.4	6	75	25	<0.1	3	40	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP191	0-0.1	Fill: silty clay	<4	<0.4	7	42	18	<0.1	3	35	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP192	0-0.1	Fill: silty clay	<4	<0.4	5	33	15	<0.1	2	14	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP193	0-0.1	Fill: silty clay	7	<0.4	7	38	19	<0.1	2	15	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP194	0-0.1	Fill: silty clay	13	<0.4	6	71	27	<0.1	3	36	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP195	0-0.1	Fill: silty clay	<4	<0.4	5	58	23	<0.1	3	33	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP195 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	5	58	24	<0.1	3	30	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP196	0-0.1	Fill: silty clayey gravel	<4	<0.4	6	57	15	<0.1	3	22	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP197	0-0.1	Fill: silty clay	<4	<0.4	8	49	26	<0.1	4	27	1.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP197	0.3-0.5	Silty clay	<4	<0.4	8	58	10	<0.1	3	10	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP198	0-0.1	Fill: silty clay	<4	<0.4	6	39	23	<0.1	3	20	0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP198	0.4-0.6	Silty clay	<4	<0.4	4	75	7	<0.1	3	14	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP198 - [LAB_DUP]	0.4-0.6	Silty clay	<4	<0.4	4	97	8	<0.1	4	23	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP198 - [TRIPPLICATE]	0.4-0.6	Silty clay	<4	<0.4	4	99	8	<0.1	4	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
TP199	0-0.1	Fill: silty clay	<4	<0.4	9	26	20	<0.1	2	20	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP200	0-0.1	Fill: silty clay	<4	<0.4	6	40	18	<0.1	3	23	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP201	0-0.1	Fill: silty clay	<4	<0.4	7	66	17	<0.1	4	18	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP202	0-0.1	Fill: silty clay	8	<0.4	8	29	16	<0.1	3	16	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP203	0-0.1	Fill: silty clay	5	<0.4	8	34	15	<0.1	3	11	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP204	0.0-0.1	Fill: silty clay	7	<0.4	9	45	24	<0.1	3	36	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP205	0-0.1	Fill: silty clay	4	<0.4	6	57	54	<0.1	3	62	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP205 - [LAB_DUP]	0-0.1	Fill: silty clay	5	<0.4	6	58	54	<0.1	3	64	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP206	0-0.1	Fill: silty clay	6	<0.4	6	69	73	<0.1	3	61	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP207	0-0.1	Fill: silty clay	<4	<0.4	6	75	25	<0.1	3	40	2.8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP208	0-0.1	Fill: silty clay	<4	<0.4	8	41	19	<0.1	3	26	0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP208	0.1-0.3	Fill: silty clay	<4	<0.4	11	38	22	<0.1	3	24	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA				
TP209	0-0.1	Fill: silty clay	<4	<0.4	7	30	19	<0.1	3	30	<0.05	<0.5	<0.1	<0.												

[illegible]

MANAGEMENT UNIT ASSIGNMENT CRITERIA										
Sample Reference	Sample Depth	Soil Texture	C ₀ < C ₁ (P ₀)		C ₀ < C ₁ (P ₁)		C ₀ < C ₁ (P ₂)		C ₀ < C ₁ (P ₃)	
			ST22	ST23	ST22	ST23	ST22	ST23	ST22	ST23
ST226	0-0.1	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST226 [S ₀ , S _{0.05}]	0-0.1	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST226	0.1-0.2	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST226 [S ₀ , S _{0.05}]	0.1-0.2	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0-0.1	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0.1-0.2	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0.2-0.3	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0.3-0.4	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0.4-0.5	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	0.5-1	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1-2	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2-4	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4-8	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	8-16	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	16-32	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	32-64	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	64-128	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	128-256	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	256-512	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	512-1024	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1024-2048	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2048-4096	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4096-8192	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	8192-16384	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	16384-32768	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	32768-65536	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	65536-131072	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	131072-262144	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	262144-524288	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	524288-1048576	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1048576-2097152	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2097152-4194304	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4194304-8388608	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	8388608-16777216	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	134217728-268435456	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	1099511627776-2199023255552	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2199023255552-4398046511104	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4398046511104-8796093022208	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	8796093022208-17592186044416	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	35184372088832-70368744177664	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	36028797018963968-72057594037927936	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	288230376151711744-576460752303423488	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	576460752303423488-1152921504606846976	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1152921504606846976-2305843009213693952	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2305843009213693952-4611686018427387904	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	18446744073709551616-36893488147419103232	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	36893488147419103232-73786976294838206464	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	147573952589676412928-295147905179352825856	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	295147905179352825856-590295810358705651712	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	590295810358705651712-1180591620717411303424	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1180591620717411303424-2361183241434822606848	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2361183241434822606848-4722366482869645213696	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4722366482869645213696-9444732965739290427392	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	9444732965739290427392-18889465931478580854784	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	18889465931478580854784-37778931862957161709568	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	37778931862957161709568-75557863725914323419136	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	75557863725914323419136-151115727451828646838272	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	151115727451828646838272-302231454903657293676544	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	302231454903657293676544-604462909807314587353088	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	604462909807314587353088-1208925819614629174706176	Free	Free	Free	Free	Free	Free	Free	Free	Free
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ST249	19342813113834066795298816-38685626227668133590597632	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	38685626227668133590597632-77371252455336267181195264	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	77371252455336267181195264-154742504910672534362390528	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	154742504910672534362390528-309485009821345068724781056	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	309485009821345068724781056-618970019642690137449562112	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	618970019642690137449562112-1237940039285380274899124224	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1237940039285380274899124224-2475880078570760549798248448	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2475880078570760549798248448-4951760157141521099596496896	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	4951760157141521099596496896-9903520314283042199192993792	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	9903520314283042199192993792-19807040628566084398385987584	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	19807040628566084398385987584-39614081257132168796771975168	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	39614081257132168796771975168-79228162514264337593543950336	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	79228162514264337593543950336-158456325028528675187087900672	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	158456325028528675187087900672-316912650057057350374175801344	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	316912650057057350374175801344-633825300114114700748351602688	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	633825300114114700748351602688-1267650600228229401496703205376	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	1267650600228229401496703205376-2535301200456458802993406410752	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	2535301200456458802993406410752-5070602400912917605986812821504	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	5070602400912917605986812821504-10141204801825835211973625643008	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	10141204801825835211973625643008-20282409603651670423947251286016	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	20282409603651670423947251286016-40564819207303340847894502572032	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	40564819207303340847894502572032-81129638414606681695789005144064	Free	Free	Free	Free	Free	Free	Free	Free	Free
ST249	81129638414606681695789005144064-1622592768292133633									

Analyte	C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₁₈	>C ₁₈ -C ₂₀	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services	25	50	100	100	0.2	0.5	1	1	1	
CRC 2011-Direct contact Criteria	5,100	3,800	5,300	7,400	120	18,000	5,300	15,000	1,900	

[illegible]

TABLE 55
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS

NSLC-Public open space; secondary schools; and footpaths

FIELD DATA														LABORATORY DATA												
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (m³)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM >7mm in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation (%w/w)	FA and AF Estimation (%w/w)
SAC			No					0.02			0.001			0.001											0.02	0.001
13/09/2021	TP136	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	278477	TP136	0-0.1	565.16	No asbestos detected at reporting limit of 0.1g/kg. Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
13/09/2021	TP149	0-0.1	No	10	8,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	278477	TP149	0-0.1	457.91	No asbestos detected at reporting limit of 0.1g/kg. Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
13/09/2021	TP149	0.1-0.8	NA	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP155	0-0.1	No	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP155	0.1-0.4	NA	10	9,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP156	0-0.1	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP156	0.1-0.3	NA	10	10,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP162	0-0.1	No	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP162	0.1-0.3	NA	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP170	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP170	0.1-0.4	NA	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP178	0-0.1	No	10	7,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP178	0.1-0.3	NA	10	7,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP183	0-0.1	No	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP183	0.1-0.6	NA	10	6,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP184	0-0.1	No	10	7,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP184	0.1-0.4	NA	10	9,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP185	0-0.1	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP185	0.1-0.3	NA	10	8,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP186	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP187	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP187	0.1-0.4	NA	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP189	0-0.1	No	10	8,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP189	0.1-0.4	NA	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP190	0-0.1	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP190	0.1-0.3	NA	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP191	0-0.1	No	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP191	0.1-0.3	NA	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP192	0-0.1	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP192	0.1-0.4	NA	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP193	0-0.1	No	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP193	0.1-0.4	NA	10	7,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP194	0-0.1	No	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP195	0-0.1	No	10	7,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP195	0.1-0.2	NA	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP196	0-0.1	No	10	9,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
13/09/2021	TP196	0.1-0.3	NA	10	9,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP197	0-0.1	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP197	0.1-0.3	NA	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP198	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP198	0.1-0.4	NA	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP199	0-0.1	No	10	7,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP199	0.1-0.2	NA	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP200	0-0.1	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP201	0-0.1	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP201	0.1-0.2	NA	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP202	0-0.1	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP203	0-0.1	No	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP203	0.1-0.4	NA	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP204	0-0-0.1	No	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
14/09/2021	TP204	0.1-0.3	NA	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
15/09/2021	TP205	0-0-0.1	No	10	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
15/09/2021	TP205	0.1-0.3	NA	10	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
15/09/2021	TP206	0-0-0.1	No	10	7,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
15/09/2021	TP206	0.1-0.4	NA	10	6,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--												
15/09/2021	TP207	0-0.1	No	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--</													

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

		HEAVY METALS										PAHs		OC/OP PESTICIDES					Total PCBs		TRH				BTEX COMPOUNDS				ASBESTOS FIBRES				
		Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc			Total PAHs	B[a]P	Total Endosulfans	Chlorpyrifos	Total Moderately Harmful	Total Scheduled		C ₁₂ -C ₁₇	C ₁₈ -C ₂₁	C ₂₂ -C ₂₅	C ₂₆ -C ₂₉	Total C ₁₂ -C ₂₉	Benzene	Toluene	Ethyl benzene	Total Xylenes						
PQL - Envirolab Services		4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100					
General Solid Waste CT1		100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650	NSL	NSL	NSL	NSL	NSL	10,000	10	288	600	1,000	-					
General Solid Waste SCC1		500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650	NSL	NSL	NSL	NSL	NSL	10,000	18	518	1,080	1,800	-					
Restricted Solid Waste CT2		400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600	NSL	NSL	NSL	NSL	NSL	40,000	40	1,152	2,400	4,000	-					
Restricted Solid Waste SCC2		2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600	NSL	NSL	NSL	NSL	NSL	40,000	72	2,072	4,320	7,200	-					
Sample Reference	Sample Depth	Sample Description																															
TP136	0-0.1	Fill: silty clay	<4	<0.4	6	57	25	<0.1	3	29	0.3	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected					
TP136 - [LAB_C	0-0.1	Fill: silty clay	<4	<0.4	6	53	27	<0.1	3	30	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP136	0.1-0.3	Silty clay	<4	<0.4	4	220	12	<0.1	3	47	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP136 - [LAB_C	0.1-0.3	Silty clay	<4	<0.4	5	190	14	<0.1	3	27	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP136 - [TRIPU]	0.1-0.3	Silty clay	<4	<0.4	5	140	14	<0.1	2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA				
TP149	0-0.1	Fill: silty clay	5	<0.4	11	66	19	<0.1	4	14	2.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected					
TP149	0.7-0.8	Latite	<4	<0.4	3	62	5	<0.1	1	8	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP155	0-0.1	Fill: silty clay	4	<0.4	6	97	22	<0.1	5	43	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP156	0-0.1	Fill: silty clay	<4	<0.4	6	87	27	<0.1	3	45	4.3	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP156	0.1-0.3	Silty clay	<4	<0.4	6	100	18	<0.1	5	19	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP156	0.4-0.6	Silty clay	<4	<0.4	5	130	15	<0.1	2	11	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP162	0-0.1	Fill: silty clay	<4	<0.4	6	73	20	<0.1	5	32	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP170	0-0.1	Fill: silty clay	<4	<0.4	7	64	24	<0.1	5	28	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP178	0-0.1	Fill: silty clay	<4	<0.4	7	50	23	<0.1	3	40	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP183	0-0.1	Fill: silty clay	5	<0.4	11	40	18	<0.1	3	14	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP184	0-0.1	Fill: silty clay	<4	<0.4	6	38	15	<0.1	3	17	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP185	0-0.1	Fill: silty clay	<4	<0.4	7	47	19	<0.1	3	19	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP185 - [LAB_C	0-0.1	Fill: silty clay	<4	<0.4	6	47	18	<0.1	3	19	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP186	0-0.1	Fill: silty clay	4	<0.4	8	80	19	<0.1	5	27	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP187	0-0.1	Fill: silty clay	7	<0.4	9	56	30	<0.1	4	33	2.7	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP187	0.4-0.5	Silty clay	<4	<0.4	8	110	16	<0.1	4	25	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP189	0-0.1	Fill: silty clay	<4	<0.4	8	43	20	<0.1	3	19	1.7	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP189	0.4-0.6	Silty clay	<4	<0.4	11	140	14	<0.1	4	18	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP190	0-0.1	Fill: silty clay	<4	<0.4	6	28	15	<0.1	2	16	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP191	0-0.1	Fill: silty clay	<4	<0.4	7	47	18	<0.1	3	19	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP192	0-0.1	Fill: silty clay	<4	<0.4	5	33	15	<0.1	2	14	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP193	0-0.1	Fill: silty clay	7	<0.4	7	38	19	<0.1	2	15	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP194	0-0.1	Fill: silty clay	13	<0.4	6	71	27	<0.1	3	36	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP195	0-0.1	Fill: silty clay	<4	<0.4	5	58	23	<0.1	3	32	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP195 - [LAB_C	0-0.1	Fill: silty clay	<4	<0.4	5	58	24	<0.1	3	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP196	0-0.1	Fill: silty clayey gravel	<4	<0.4	6	57	15	<0.1	3	22	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP197	0-0.1	Fill: silty clay	<4	<0.4	8	49	26	<0.1	4	27	1.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP197	0.3-0.5	Silty clay	<4	<0.4	8	58	26	<0.1	3	19	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP198	0-0.1	Fill: silty clay	<4	<0.4	6	39	23	<0.1	3	20	0.5	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA					
TP198	0.4-0																																

TABLE S8

SOIL LABORATORY TCLP RESULTS

All data in mg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.03	0.0005	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	5	0.2	2	0.04
TCLP2 - Restricted Solid Waste			20	4	20	20	0.8	8	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	>20	>0.8	>8	>0.16
Sample Reference	Sample Depth	Sample Description							
TP234	0-0.1	Fill: silty clay	NA	NA	NA	0.05	NA	NA	NA
TP256	0-0.1	Fill: silty clay	NA	NA	NA	<0.03	NA	NA	NA
TP257	0-0.1	Fill: silty clay	NA	NA	NA	<0.03	NA	NA	NA
TP260	0-0.1	Fill: silty clay	NA	NA	NA	0.09	NA	NA	NA
Total Number of samples			0	0	0	4	0	0	0
Maximum Value			NA	NA	NA	0.09	NA	NA	NA
General Solid Waste			VALUE						
Restricted Solid Waste			VALUE						
Hazardous Waste			VALUE						
Concentration above PQL			Bold						

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	TP136 0-0.1	TP136 - [Lab DUP] 0-0.1	TP136 0.3-0.4	TP178 0-0.1	TP178 1.0-1.1	TP193 0-0.1	TP193 0.7-0.8	TP215 0-0.1	TP215 0.8-0.9	TP224 0-0.1	TP224 - [Lab DUP] 0-0.1	TP224 1.0-1.1	SDUPPFAS1 -
PFAS Compound																
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<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
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<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
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<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
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<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
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<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
Perfluorobutanoic acid	0.2	NSL	NSL	0.2	0.3	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<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
Perfluorohexanoic acid	0.1	NSL	NSL	<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
Perfluoroheptanoic acid	0.1	NSL	NSL	<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
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	<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
Perfluorononanoic acid	0.1	NSL	NSL	<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
Perfluorodecanoic acid	0.5	NSL	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	NSL	<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
Perfluorododecanoic acid	0.5	NSL	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	NSL	<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
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<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
6:2 FTS	0.1	NSL	NSL	<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
8:2 FTS	0.1	NSL	NSL	<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
10:2 FTS	0.1	NSL	NSL	<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
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<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
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<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
Total Positive PFHxS & PFOS	0.1	NSL	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFAS	0.1	NSL	NSL	0.6	0.7	<0.1	0.6	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Public Open Space	TP136 0-0.1	TP136 - [Lab DUP] 0-0.1	TP136 0.3-0.4	TP178 0-0.1	TP178 1.0-1.1	TP193 0-0.1	TP193 0.7-0.8	TP215 0-0.1	TP215 0.8-0.9	TP224 0-0.1	TP224 - [Lab DUP] 0-0.1	TP224 1.0-1.1	SDUPPFAS1 -
PFAS Compound															
Perfluorobutanesulfonic acid	0.1	NSL	<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
Perfluoropentanesulfonic acid	0.1	NSL	<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
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<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
Perfluoroheptanesulfonic acid	0.1	NSL	<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
Perfluorooctanesulfonic acid PFOS	0.1	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Perfluorodecane sulfonic acid	0.2	NSL	<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
Perfluorobutanoic acid	0.2	NSL	0.2	0.3	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<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
Perfluorohexanoic acid	0.1	NSL	<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
Perfluoroheptanoic acid	0.1	NSL	<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
Perfluorooctanoic acid PFOA	0.1	10,000	<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
Perfluorononanoic acid	0.1	NSL	<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
Perfluorodecanoic acid	0.5	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	<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
Perfluorododecanoic acid	0.5	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	<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
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<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
6:2 FTS	0.1	NSL	<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
8:2 FTS	0.1	NSL	<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
10:2 FTS	0.1	NSL	<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
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<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
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<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
Total Positive PFHxS & PFOS	0.1	1,000	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFOS & PFOA	0.1	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFAS	0.1	NSL	0.6	0.7	<0.1	0.6	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Positive PFAS result PFAS result above the SAC Bold Bold															

TABLE P3 SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION Units are µg/Kg unless stated otherwise.																
	PQL EnviroLab Services	SCC1	SCC2	TP136 0-0.1	TP136 - [Lab DUP] 0-0.1	TP136 0.3-0.4	TP178 0-0.1	TP178 1.0-1.1	TP193 0-0.1	TP193 0.7-0.8	TP215 0-0.1	TP215 0.8-0.9	TP224 0-0.1	TP224 - [Lab DUP] 0-0.1	TP224 1.0-1.1	SDUPPFAS1 -
PFAS Compound																
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<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
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<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
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<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
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<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
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<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
Perfluorobutanoic acid	0.2	NSL	NSL	0.2	0.3	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<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
Perfluorohexanoic acid	0.1	NSL	NSL	<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
Perfluoroheptanoic acid	0.1	NSL	NSL	<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
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<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
Perfluorononanoic acid	0.1	NSL	NSL	<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
Perfluorodecanoic acid	0.5	NSL	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	NSL	<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
Perfluorododecanoic acid	0.5	NSL	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	NSL	<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
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<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
6:2 FTS	0.1	NSL	NSL	<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
8:2 FTS	0.1	NSL	NSL	<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
10:2 FTS	0.1	NSL	NSL	<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
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<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
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<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
Total Positive PFHxS & PFOS	0.1	1800	7,200	0.4	0.4	<0.1	0	<0.1	0	<0.1	0	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.4	0.4	<0.1	0.1	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Total Positive PFAS	0.1	NSL	NSL	0.6	0.7	<0.1	0.6	<0.1	0.1	<0.1	0.4	<0.1	0.3	0.2	<0.1	0.4
Result above SCC1 Criteria Bold Result above SCC2 Criteria Bold																

TABLE P4
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	TP136 0-0.1	TP136 0-0.1	TP136 0.3-0.4	TP178 0-0.1	TP178 1.0-1.1	TP193 0-0.1	TP193 0.7-0.8	TP215 0-0.1	TP215 0.8-0.9	TP224 0-0.1	TP224 1.0-1.1	SDUPPFAS1 -	SDUPPFAS1 - LAB-DUP -
PFAS Compound																
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<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
Perfluorotridecanoic acid	0.1	NSL	NSL	<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
Perfluorotetradecanoic acid	0.5	NSL	NSL	<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
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<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
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<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
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<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
N-Me perfluorooctanesulfonamid ethanol	0.05	NSL	NSL	<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
N-Et perfluorooctanesulfonamid ethanol	0.5	NSL	NSL	<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
MePer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Result above TCLP1 Criteria Bold																
Result above TCLP2 Criteria Bold																



Soil Batch 3 -
Contamination Data Summary Tables

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCL after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{POS}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLs:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMR:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

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TABLE 52 SOIL LABORATORY RESULTS COMPARED TO HSLs All data in mg/kg unless stated otherwise												
					C _P -C ₁₀ (F1)	>C _P -C ₁₀ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - EnviroLab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL							
Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category								
TP105	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP106	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP108	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP109	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP123	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP150	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP150 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP181	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP181	0.1-0.3	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP218	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP227	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP228	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP229	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP230	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP237	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP238	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP239	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP240	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP243	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP243 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP244	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP244	0.5-0.7	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP245	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP246	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP247	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP248	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP249	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP250	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP251	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP252	0-0.1	Fill: silty gravelly clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP253	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP254	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP255	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP263	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP263 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP265	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP266	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP267	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP268	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP269	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP270	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP273	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP274	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP275	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP275 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP31	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP32	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP33	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP34	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP35	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP36	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP36 - [LAB_DUP]	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP37	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP38	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP39	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP40	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP41	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP42	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUPAS84	-	Soil DUP	0m to <1m	Sand	NA	NA	NA	NA	NA	NA	NA	-
SDUPAS87	-	Soil DUP	0m to <1m	Sand	NA	NA	NA	NA	NA	NA	NA	-
Total Number of Samples					58	58	58	58	58	58	58	45
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL
Concentration above the SAC					VALUE							
Concentration above the PQL					Bold							
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below												

HSL SOIL ASSESSMENT CRITERIA												
Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category	C _p -C ₁₀ (F1)	>C _p -C ₁₀ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	
TP105	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP106	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP108	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP109	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP123	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP150	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP150 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP181	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP181	0.1-0.3	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP218	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP227	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP228	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP229	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP230	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP237	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP238	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP239	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP240	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP243	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP243 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP244	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP244	0.5-0.7	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP245	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP246	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP247	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP248	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP249	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP250	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP252	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP252	0-0.1	Fill: silty gravelly clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP253	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP254	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP255	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP263	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP263 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP265	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP266	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP267	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP268	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP269	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP270	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP273	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP274	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP275	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
TP275 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU331	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU332	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU333	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU334	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU335	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU336	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU336 - [LAB_DUP]	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU337	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU338	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU339	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU340	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU341	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU342	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU343	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3	
SOU343S84	-	Soil DUP	0m to <1m	NA	NA	NA	NA	NA	NA	NA	NA	
SOU343S87	-	Soil DUP	0m to <1m	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 53 SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS All data in mg/kg unless stated otherwise						
			C ₁₅ -C ₁₆ (F1) plus BTEX	>C ₁₀ -C ₁₆ (F2) plus naphthalene	>C ₁₀ -C ₁₆ (F3)	>C ₁₀ -C ₁₆ (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category						
RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE						
Sample Reference	Sample Depth	Soil Texture				
TP105	0-0.1	Fine	<25	<50	<100	<100
TP106	0-0.1	Fine	<25	<50	<100	<100
TP108	0-0.1	Fine	<25	<50	<100	<100
TP109	0-0.1	Fine	<25	<50	<100	<100
TP123	0-0.1	Fine	<25	<50	<100	<100
TP150	0-0.1	Fine	<25	<50	<100	<100
TP150 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP181	0-0.1	Fine	<25	<50	<100	<100
TP181	0.1-0.3	Fine	<25	<50	<100	<100
TP218	0-0.1	Fine	<25	<50	<100	<100
TP227	0-0.1	Fine	<25	<50	<100	<100
TP228	0-0.1	Fine	<25	<50	<100	<100
TP229	0-0.1	Fine	<25	<50	<100	<100
TP230	0-0.1	Fine	<25	<50	<100	<100
TP237	0-0.1	Fine	<25	<50	<100	<100
TP238	0-0.1	Fine	<25	<50	<100	<100
TP239	0-0.1	Fine	<25	<50	<100	<100
TP240	0-0.1	Fine	<25	<50	<100	<100
TP243	0-0.1	Fine	<25	<50	<100	<100
TP243 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP244	0-0.1	Fine	<25	<50	<100	<100
TP244	0.5-0.7	Fine	<25	<50	<100	<100
TP245	0-0.1	Fine	<25	<50	<100	<100
TP246	0-0.1	Fine	<25	<50	<100	<100
TP247	0-0.1	Fine	<25	<50	<100	<100
TP248	0-0.1	Fine	<25	<50	<100	<100
TP249	0-0.1	Fine	<25	<50	<100	<100
TP250	0-0.1	Fine	<25	<50	<100	<100
TP251	0-0.1	Fine	<25	<50	<100	<100
TP252	0-0.1	Fine	<25	<50	<100	<100
TP253	0-0.1	Fine	<25	<50	<100	<100
TP254	0-0.1	Fine	<25	<50	<100	<100
TP255	0-0.1	Fine	<25	<50	<100	<100
TP263	0-0.1	Fine	<25	<50	<100	<100
TP263 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP265	0-0.1	Fine	<25	<50	<100	<100
TP266	0-0.1	Fine	<25	<50	<100	<100
TP267	0-0.1	Fine	<25	<50	<100	<100
TP268	0-0.1	Fine	<25	<50	<100	<100
TP269	0-0.1	Fine	<25	<50	<100	<100
TP270	0-0.1	Fine	<25	<50	<100	<100
TP273	0-0.1	Fine	<25	<50	<100	<100
TP274	0-0.1	Fine	<25	<50	<100	<100
TP275	0-0.1	Fine	<25	<50	<100	<100
TP275 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
SDUP31	-	Fine	<25	<50	<100	<100
SDUP32	-	Fine	<25	<50	<100	<100
SDUP33	-	Fine	<25	<50	<100	<100
SDUP34	-	Fine	<25	<50	<100	<100
SDUP35	-	Fine	<25	<50	<100	<100
SDUP36	-	Fine	<25	<50	<100	<100
SDUP36 - [LAB_DUP]	-	Fine	<25	<50	<100	<100
SDUP37	-	Fine	<25	<50	<100	<100
SDUP38	-	Fine	<25	<50	<100	<100
SDUP39	-	Fine	<25	<50	<100	<100
SDUP40	-	Fine	<25	<50	<100	<100
SDUP41	-	Fine	<25	<50	<100	<100
SDUP42	-	Fine	<25	<50	<100	<100
SDUPASB4	-	Fine	NA	NA	NA	NA
SDUPASB7	-	Fine	NA	NA	NA	NA
Total Number of Samples			58	58	58	58
Maximum Value			<PQL	<PQL	<PQL	<PQL
Concentration above the SAC			VALUE			
Concentration above the PQL			Bold			

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Soil Texture	C ₁₅ -C ₁₆ (F1) plus BTEX	>C ₁₀ -C ₁₆ (F2) plus naphthalene	>C ₁₀ -C ₁₆ (F3)	>C ₁₀ -C ₁₆ (F4)
TP105	0-0.1	Fine	800	1000	3500	10000
TP106	0-0.1	Fine	800	1000	3500	10000
TP108	0-0.1	Fine	800	1000	3500	10000
TP109	0-0.1	Fine	800	1000	3500	10000
TP123	0-0.1	Fine	800	1000	3500	10000
TP150	0-0.1	Fine	800	1000	3500	10000
TP150 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP181	0-0.1	Fine	800	1000	3500	10000
TP181	0.1-0.3	Fine	800	1000	3500	10000
TP218	0-0.1	Fine	800	1000	3500	10000
TP227	0-0.1	Fine	800	1000	3500	10000
TP228	0-0.1	Fine	800	1000	3500	10000
TP229	0-0.1	Fine	800	1000	3500	10000
TP230	0-0.1	Fine	800	1000	3500	10000
TP237	0-0.1	Fine	800	1000	3500	10000
TP238	0-0.1	Fine	800	1000	3500	10000
TP239	0-0.1	Fine	800	1000	3500	10000
TP240	0-0.1	Fine	800	1000	3500	10000
TP243	0-0.1	Fine	800	1000	3500	10000
TP243 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP244	0-0.1	Fine	800	1000	3500	10000
TP244	0.5-0.7	Fine	800	1000	3500	10000
TP245	0-0.1	Fine	800	1000	3500	10000
TP246	0-0.1	Fine	800	1000	3500	10000
TP247	0-0.1	Fine	800	1000	3500	10000
TP248	0-0.1	Fine	800	1000	3500	10000
TP249	0-0.1	Fine	800	1000	3500	10000
TP250	0-0.1	Fine	800	1000	3500	10000
TP251	0-0.1	Fine	800	1000	3500	10000
TP252	0-0.1	Fine	800	1000	3500	10000
TP253	0-0.1	Fine	800	1000	3500	10000
TP254	0-0.1	Fine	800	1000	3500	10000
TP255	0-0.1	Fine	800	1000	3500	10000
TP263	0-0.1	Fine	800	1000	3500	10000
TP263 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP265	0-0.1	Fine	800	1000	3500	10000
TP266	0-0.1	Fine	800	1000	3500	10000
TP267	0-0.1	Fine	800	1000	3500	10000
TP268	0-0.1	Fine	800	1000	3500	10000
TP269	0-0.1	Fine	800	1000	3500	10000
TP270	0-0.1	Fine	800	1000	3500	10000
TP273	0-0.1	Fine	800	1000	3500	10000
TP274	0-0.1	Fine	800	1000	3500	10000
TP275	0-0.1	Fine	800	1000	3500	10000
TP275 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
SDUP31	-	Fine	800	1000	3500	10000
SDUP32	-	Fine	800	1000	3500	10000
SDUP33	-	Fine	800	1000	3500	10000
SDUP34	-	Fine	800	1000	3500	10000
SDUP35	-	Fine	800	1000	3500	10000
SDUP36	-	Fine	800	1000	3500	10000
SDUP36 - [LAB_DUP]	-	Fine	800	1000	3500	10000
SDUP37	-	Fine	800	1000	3500	10000
SDUP38	-	Fine	800	1000	3500	10000
SDUP39	-	Fine	800	1000	3500	10000
SDUP40	-	Fine	800	1000	3500	10000
SDUP41	-	Fine	800	1000	3500	10000
SDUP42	-	Fine	800	1000	3500	10000
SDUPASB4	-	Fine	NA	NA	NA	NA
SDUPASB7	-	Fine	NA	NA	NA	NA

TABLE S4
SOIL LABORATORY RESULTS COMPARED TO DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₃₄	>C ₃₄ -C ₄₀	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 - Direct contact Criteria		5,100	3,800	5,300	7,400	120	18,000	5,300	15,000	1,900	
Site Use		RECREATIONAL - DIRECT SOIL CONTACT									
Sample Reference	Sample Depth										
TP105	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP106	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP108	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP109	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP123	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP150	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP150 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP181	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP181	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP218	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP227	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP228	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP229	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP230	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP237	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP238	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP239	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP240	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP243	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP243 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP244	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP244	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP245	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP246	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP247	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP248	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP249	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP250	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP251	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP252	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP253	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP254	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP255	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP263	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP263 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP265	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP266	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP267	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP268	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP269	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP270	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP273	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP274	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP275	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP275 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP31	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP32	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP33	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP34	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP35	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP36	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP36 - [LAB_DUP]	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP37	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP38	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP39	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP40	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP41	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP42	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUPASB4	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
SDUPASB7	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
Total Number of Samples		58	58	58	58	58	58	58	58	58	45
Maximum Value		<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL
Concentration above the SAC		VALUE									
Concentration above the PQL		Bold									

FIELD DATA														LABORATORY DATA														
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (A54964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %w/w	FA and AF Estimation %w/w		
SAC		No			0.02				0.001				0.001				0.02										0.001	
22/09/2021	TP105	0-0.1	No	10	8,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP105	0-0.1	339.68	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP105	0.1-0.3	NA	10	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
22/09/2021	TP106	0-0.1	No	10	10,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP106	0-0.1	462.13	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP106	0.1-0.3	NA	10	9,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
22/09/2021	TP108	0-0.1	No	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP108	0-0.1	462.89	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP109	0-0.1	No	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP109	0-0.1	321.37	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP109	0.1-0.2	NA	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
22/09/2021	TP123	0-0.1	No	10	9,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP123	0-0.1	438.2	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP150	0-0.1	No	10	9,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP150	0-0.1	510.84	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP181	0-0.1	No	10	7,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP181	0-0.1	401.13	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP218	0-0.1	No	10	6,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP218	0-0.1	348.18	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
22/09/2021	TP218	0.1-0.2	NA	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
21/09/2021	TP227	0-0.1	NA	10	6,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
21/09/2021	TP228	0-0.1	NA	10	7,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
21/09/2021	TP229	0-0.1	NA	10	7,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP229	0-0.1	393.82	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
20/09/2021	TP230	0-0.1	NA	10	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
21/09/2021	TP237	0-0.1	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	278875	TP237	0-0.1	487.06	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01		

VALUE

TABLE 56 SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs All data in mg/kg unless stated otherwise																								
Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																				
				pH	CEC (cmol/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C ₁₀ -C ₁₄ (F1)	>C ₁₀ -C ₁₄ (F2)	>C ₁₀ -C ₁₄ (F3)	>C ₁₀ -C ₁₄ (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P	
POL - Envirolab Services				1	-	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05	
Ambient Background Concentration (ABC)							NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	
Sample Reference	Sample Depth	Sample Description	Soil Texture																					
TP105	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	7	68	32	4	41	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.07	
TP106	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	5	54	24	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP108	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	5	73	26	3	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP109	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	66	22	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05	
TP123	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	6	74	16	2	15	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05	
TP150	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	7	11	88	34	4	23	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.4	
TP150 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	8	11	95	34	4	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.4	
TP181	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	11	11	110	32	5	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP181	0.1-0.3	Silty clay	Fine	6.13	15.54	NA	<4	13	140	12	6	18	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP218	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	9	28	22	4	38	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.07	
TP227	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	11	31	23	5	36	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2	
TP228	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	12	29	21	4	34	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05	
TP229	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	12	25	18	3	31	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP230	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	29	26	4	37	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP237	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	17	23	23	4	40	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.1	
TP238	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	21	16	3	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05	
TP239	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	11	23	25	3	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP240	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	10	27	17	4	39	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP243	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	8	62	23	4	46	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP243 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	8	62	25	5	51	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP244	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	8	9	84	73	6	320	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP244	0.5-0.7	Silty clay	Fine	6.13	15.54	NA	<4	5	170	12	7	58	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP245	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	110	41	5	130	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP246	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	6	83	39	4	96	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP247	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	22	16	4	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP247 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	22	16	4	33	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05
TP248	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	14	23	17	3	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP249	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	24	15	4	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP250	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	10	48	22	3	35	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP251	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	16	59	24	4	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP252	0-0.1	Fill: silty gravelly clay	Fine	6.13	15.54	NA	<4	7	41	18	3	32	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP253	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	7	82	27	4	48	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP254	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	6	67	22	4	38	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP255	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	83	15	2	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP263	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	4	8	40	39	3	49	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.08	
TP263 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	4	10	50	44	4	59	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP265	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	6	54	29	1	58	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP266	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	20	32	20	6	35	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP267	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	13	19	16	3	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP268	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	7	48	19	2	48	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP269	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	7	61	22	3	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP270	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	5	71	24	3	66	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP273	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	4	11	36	18	3	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP274	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	4	12	47	21	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP275	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	9	75	26	4	44	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
TP275 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	9	68	24	4	40	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
SDUP31	-	Soil DUP	Fine	6.13	15.54	NA	<4	7	81	31	1	41	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
SDUP32	-	Soil DUP	Fine	6.13	15.54	NA	5	10	68	28	6	70	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
SDUP33	-	Soil DUP	Fine	6.13	15.54	NA	6	7	79	62	5	250	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05	
SDUP34	-	Soil DUP	Fine	6.13	15.54	NA	4	6	120	56	6	180	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05	
SDUP35	-	Soil DUP	Fine	6.13	15.54	NA	<4	11	52	16	3	27	<1	NA	<25	<50	<100	<100	<0.2					

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS							PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES		
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled		C ₆ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₂₈	C ₂₉ -C ₃₆	Total C ₁₀ -C ₃₆	Benzene	Toluene	Ethyl benzene	Total Xylenes		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-	
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-	
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-	
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-	
Sample Reference	Sample Depth	Sample Description																										
TP105	0-0.1	Fill: silty clay	<4	<0.4	7	68	32	<0.1	4	41	0.59	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP106	0-0.1	Fill: silty clay	<4	<0.4	5	54	24	<0.1	3	25	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP108	0-0.1	Fill: silty clay	<4	<0.4	5	73	26	<0.1	3	27	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP109	0-0.1	Fill: silty clay	<4	<0.4	4	66	22	<0.1	3	25	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP123	0-0.1	Fill: silty clay	<4	<0.4	6	74	16	<0.1	2	15	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP150	0-0.1	Fill: silty clay	7	<0.4	11	88	34	<0.1	4	23	5.3	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP150 - [LAB_DUP]	0-0.1	Fill: silty clay	8	<0.4	11	95	34	<0.1	4	25	5.2	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP181	0-0.1	Fill: silty clay	11	<0.4	11	110	32	<0.1	5	30	0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP181	0.1-0.3	Silty clay	<4	<0.4	13	140	12	<0.1	6	18	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP218	0-0.1	Fill: silty clay	<4	<0.4	9	28	22	<0.1	4	38	0.4	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP227	0-0.1	Fill: silty clay	<4	<0.4	11	31	23	<0.1	5	36	2.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP228	0-0.1	Fill: silty clay	<4	<0.4	12	29	21	<0.1	4	34	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP229	0-0.1	Fill: silty clay	<4	<0.4	12	25	18	<0.1	3	31	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP230	0-0.1	Fill: silty clay	<4	<0.4	13	29	26	<0.1	4	37	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP237	0-0.1	Fill: silty clay	<4	<0.4	17	28	23	<0.1	4	40	1.4	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP238	0-0.1	Fill: silty clay	<4	<0.4	13	21	16	<0.1	3	30	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP239	0-0.1	Fill: silty clay	<4	<0.4	11	23	25	<0.1	3	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP240	0-0.1	Fill: silty clay	<4	<0.4	10	27	17	<0.1	4	39	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP243	0-0.1	Fill: silty clay	4	<0.4	8	62	23	<0.1	4	46	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP243 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	8	62	25	<0.1	5	51	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP244	0-0.1	Fill: silty clay	8	0.4	9	84	73	<0.1	6	320	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP244	0.1-0.3	Fill: silty clay	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected	
TP244	0.5-0.7	Silty clay	<4	<0.4	5	170	12	<0.1	7	58	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP245	0-0.1	Fill: silty clay	<4	<0.4	4	110	41	<0.1	5	130	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP245	0.1-0.3	Fill: silty clay	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected	
TP246	0-0.1	Fill: silty clay	<4	<0.4	6	83	39	<0.1	4	96	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP247	0-0.1	Fill: silty clay	<4	<0.4	13	22	16	<0.1	4	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected	
TP247 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	13	22	16	<0.1	4	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP248	0-0.1	Fill: silty clay	<4	<0.4	14	23	17	<0.1	3	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP249	0-0.1	Fill: silty clay	<4	<0.4	13	24	15	<0.1	4	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP250	0-0.1	Fill: silty clay	<4	<0.4	10	48	22	<0.1	3	35	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA	
TP251	0-0.1	Fill: silty clay	<4	<0.4	16	59	24	<0.1	4	21	<0.05	<0.05	&															

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	TP150 0-0.1	TP150 - [LAB DUP] 0-0.1	TP150 0.8-0.9	TP181 Direct exposure 0-0.1	TP181 Indirect exposure 0.9-1.1	TP263 0-0.1	TP263 0.8-0.9	TP266 0-0.1	TP266 0.7-0.8	TP275 0-0.1	TP275 - [LAB DUP] 0-0.1	TP275 0.1-0.2	SDUPPFAS2 -	SDUPPFAS3 -	SDUPPFAS4 -	SDUPPFAS5 -	SDUPPFAS5 - [LAB DUP] -	SDUPPFAS6 -
PFAS Compound																					
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.3	<0.2	0.2	0.3	0.2	0.3	0.3	0.3
Perfluoropentanoic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	<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	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	NSL	<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
Perfluorododecanoic acid	0.5	NSL	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	NSL	<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
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<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	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<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	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<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	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<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	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uoroctanesulf-amid oacetic acid	0.2	NSL	NSL	<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	<0.2	<0.2
EtPer uoroctanesulf-amid oacetic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFOA & PFOA	0.1	NSL	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFAS	0.1	NSL	NSL	0.5	0.5	<0.1	0.7	<0.1	0.2	<0.1	0.2	<0.1	0.4	0.4	<0.1	0.4	0.2	0.7	0.7	0.5	0.5
Positive PFAS result		Bold																			
PFAS result above the SAC		Bold																			

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Public Open Space	TP150 0-0.1	TP150 - [LAB DUP] 0-0.1	TP150 0.8-0.9	TP181 0-0.1	TP181 0.9-1.1	TP263 0-0.1	TP263 0.8-0.9	TP266 0-0.1	TP266 0.7-0.8	TP275 0-0.1	TP275 - [LAB DUP] 0-0.1	TP275 0.1-0.5	SDUPPFAS2 -	SDUPPFAS3 -	SDUPPFAS4 -	SDUPPFAS5 -	SDUPPFAS5 - [LAB DUP] -	SDUPPFAS6 -
PFAS Compound																				
Perfluorobutanesulfonic acid	0.1	NSL	<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	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<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	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<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	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<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	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Perfluorodecane sulfonic acid	0.2	NSL	<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	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	0.3	0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.3	<0.2	0.2	0.3	0.2	0.3	0.3	0.3
Perfluoropentanoic acid	0.2	NSL	<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	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<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	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<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	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	<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	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<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	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	<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
Perfluorododecanoic acid	0.5	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	<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
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<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	<0.1	<0.1
6:2 FTS	0.1	NSL	<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	<0.1	<0.1
8:2 FTS	0.1	NSL	<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	<0.2	<0.2
10:2 FTS	0.1	NSL	<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	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<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	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<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	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1,000	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFOS & PFOA	0.1	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFAS	0.1	NSL	0.5	0.5	<0.1	0.7	<0.1	0.2	<0.1	0.2	<0.1	0.4	0.4	<0.1	0.4	0.4	0.2	0.7	0.7	0.5

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

TABLE P3
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	POL EnviroLab Services	SCC1	SCC2	TP150 0-0.1	TP150 - [LAB DUP] 0-0.1	TP150 0.8-0.9	TP181 0-0.1	TP181 0.9-1.1	TP263 0-0.1	TP263 0.8-0.9	TP266 0-0.1	TP266 0.7-0.8	TP275 0-0.1	TP275 - [LAB DUP] 0-0.1	TP275 0.1-0.3	SDUPPFAS2 -	SDUPPFAS3 -	SDUPPFAS4 -	SDUPPFAS5 -	SDUPPFAS5 - [LAB DUP] -	SDUPPFAS6 -
PFAS Compound																					
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	0.3	<0.2	0.2	0.3	0.3	0.3	0.3
Perfluoropentanoic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<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	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<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
Perfluoroundecanoic acid	0.5	NSL	NSL	<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
Perfluorododecanoic acid	0.5	NSL	NSL	<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
Perfluorotridecanoic acid	0.5	NSL	NSL	<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
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<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	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<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	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<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	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<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	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uoroctanesulf-amid oacetic acid	0.2	NSL	NSL	<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	<0.2	<0.2
EtPer uoroctanesulf-amid oacetic acid	0.2	NSL	NSL	<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	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2	0.1	<0.1	0.4	0.4	0.2
Total Positive PFAS	0.1	NSL	NSL	0.5	0.5	<0.1	0.7	<0.1	0.2	<0.1	0.2	<0.1	0.4	0.4	<0.1	0.4	0.4	0.2	0.7	0.7	0.5

Result above SCC1 Criteria **Bold**
Result above SCC2 Criteria **Bold**

TABLE PQ1
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL EnviroLab Services	TCLP1	TCLP2	TP150 0-0.1	TP150 0-0.1	TP150 0.8-0.9	TP181 0-0.1	TP181 0.9-1.1	TP263 0-0.1	TP263 0.8-0.9	TP266 0-0.1	TP266 0.7-0.8	TP275 0-0.1	TP275 0.1-0.3	SDUPPFAS2 -	SDUPPFAS2 -	SDUPPFAS4 -	SDUPPFAS6 -
PFAS Compound																		
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<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	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<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
Perfluorotetradecanoic acid	0.5	NSL	NSL	<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
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<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
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<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	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<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
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<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	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<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
MePer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Result above TCLP1 Criteria **Bold**
Result above TCLP2 Criteria **Bold**



Soil Batch 4 -
Contamination Data Summary Tables

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCL after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{POS}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLs:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-C: 'Public open space; secondary schools; and footpaths'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)								OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos			
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			300	90	300	17000	600	80	1200	30000	300	3	10	340	400	10	70	400	10	250	1	Detected/Not Detected	
Sample Reference	Sample Depth	Sample Description																					
TP101	0-0.1	Fill: silty clay	<4	<0.4	3	62	33	<0.1	3	34	1.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP101 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	3	61	29	<0.1	2	30	1.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP102	0-0.1	Fill: silty clay	<4	<0.4	4	46	20	<0.1	2	130	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP103	0-0.1	Fill: silty clay	<4	<0.4	4	72	35	<0.1	3	42	2.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP104	0-0.1	Fill: silty clay	<4	<0.4	4	57	28	<0.1	2	28	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP107	0-0.1	Fill: silty clay	<4	<0.4	4	94	31	<0.1	4	44	1.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP107	0.3-0.5	Silty clay	<4	<0.4	6	150	10	<0.1	4	25	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP107 - [LAB_DUP]	0.3-0.5	Silty clay	<4	<0.4	6	150	9	<0.1	4	27	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP110	0-0.1	Fill: silty clay	<4	<0.4	4	63	17	<0.1	2	14	1.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP111	0-0.1	Fill: silty clay	<4	<0.4	4	60	22	<0.1	2	20	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP112	0-0.1	Fill: silty clay	<4	<0.4	3	57	17	<0.1	2	14	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP113	0-0.1	Fill: silty clay	<4	<0.4	4	75	24	<0.1	3	29	1.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP113 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	4	85	27	<0.1	3	33	1.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP113	0.2-0.4	Silty clay	<4	<0.4	10	280	20	<0.1	6	32	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP114	0-0.1	Fill: silty clay	<4	<0.4	4	55	17	<0.1	2	18	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP115	0-0.1	Fill: silty clay	<4	<0.4	3	51	16	<0.1	2	12	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP116	0-0.1	Fill: silty gravelly clay	<4	<0.4	4	78	23	<0.1	3	28	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP117	0-0.1	Fill: silty clay	<4	<0.4	5	71	24	<0.1	2	23	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP118	0-0.1	Fill: silty clay	<4	<0.4	3	43	15	<0.1	1	14	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP122	0-0.1	Fill: silty clay	<4	<0.4	4	60	18	<0.1	2	19	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP271	0-0.1	Fill: silty clay	<4	<0.4	18	25	15	<0.1	4	30	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP272	0-0.1	Fill: silty clay	<4	<0.4	11	37	23	<0.1	3	32	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP276	0-0.1	Fill: silty clay	<4	<0.4	19	27	15	<0.1	5	27	0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP277	0-0.1	Fill: silty clay	<4	<0.4	19	34	27	<0.1	7	45	0.71	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP277 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	15	32	23	<0.1	6	43	0.88	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP278	0-0.1	Fill: silty clay	<4	<0.4	17	23	15	<0.1	6	33	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP279	0-0.1	Fill: silty clay	<4	<0.4	16	25	17	<0.1	5	36	0.84	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP280	0-0.1	Fill: silty clay	<4	<0.4	19	25	15	<0.1	7	34	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP43	-	Soil DUP	<4	<0.4	10	34	19	<0.1	3	32	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP44	-	Soil DUP	<4	<0.4	21	26	18	0.1	5	37	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP45	-	Soil DUP	<4	<0.4	21	32	20	<0.1	6	33	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP46	-	Soil DUP	<4	<0.4	21	37	30	0.2	8	57	0.72	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP46 - [LAB_DUP]	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	1.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP47	-	Soil DUP	<4	<0.4	4	73	24	<0.1	3	21	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP48	-	Soil DUP	<4	<0.4	4	66	21	0.2	2	19	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP48 - [LAB_DUP]	-	Soil DUP	<4	<0.4	5	65	23	0.3	2	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP49	-	Soil DUP	<4	<0.4	5	58	20	<0.1	2	15	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP50	-	Soil DUP	<4	<0.4	5	60	21	0.3	3	25	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUPASB11	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB12	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB13	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB14	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB15	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB16	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB17	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB18	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB19	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB20	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
SDUPASB21	-	Soil DUP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA							

Concentration above the SAC
Concentration above the PQL

VALUE
Bold

TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL							
Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category								
TP101	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP101 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP102	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP103	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP104	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP107	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP107	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP107 - [LAB_DUP]	0.3-0.5	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP110	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP111	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP112	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP113	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP113 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP113	0.2-0.4	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP114	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP115	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP116	0-0.1	Fill: silty gravelly clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP117	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP118	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP122	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP271	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP272	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP276	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP277	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP277 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP278	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP279	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
TP280	0-0.1	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP43	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP44	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP45	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP46	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP46 - [LAB_DUP]	-	Soil DUP	0m to <1m	Sand	NA	<50	NA	NA	NA	NA	NA	0
SDUP47	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP48	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP49	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP50	-	Soil DUP	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
Total Number of Samples					36	37	36	36	36	36	36	37
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL
Concentration above the SAC					VALUE							
Concentration above the PQL					Bold							
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below												

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
TP101	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP101 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP102	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP103	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP104	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP107	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP107	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP107 - [LAB_DUP]	0.3-0.5	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP110	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP111	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP112	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP113	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP113 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP113	0.2-0.4	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP114	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP115	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP116	0-0.1	Fill: silty gravelly clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP117	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP118	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP122	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP271	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP272	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP276	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP277	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP277 - [LAB_DUP]	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP278	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP279	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP280	0-0.1	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP43	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP44	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP45	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP46	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP46 - [LAB_DUP]	-	Soil DUP	0m to <1m	Sand	NA	110	NA	NA	NA	NA	NA
SDUP47	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP48	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP49	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP50	-	Soil DUP	0m to <1m	Sand	45	110	0.5	160	55	40	3

TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C ₆ -C ₁₀ (F1) plus BTEX	>C ₁₀ -C ₁₆ (F2) plus naphthalene	>C ₁₆ -C ₃₄ (F3)	>C ₃₄ -C ₄₀ (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE			
Sample Reference	Sample Depth	Soil Texture				
TP101	0-0.1	Fine	<25	<50	<100	<100
TP101 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP102	0-0.1	Fine	<25	<50	<100	<100
TP103	0-0.1	Fine	<25	<50	<100	<100
TP104	0-0.1	Fine	<25	<50	<100	<100
TP107	0-0.1	Fine	<25	<50	<100	<100
TP107	0.3-0.5	Fine	<25	<50	<100	<100
TP107 - [LAB_DUP]	0.3-0.5	Fine	<25	<50	<100	<100
TP110	0-0.1	Fine	<25	<50	<100	<100
TP111	0-0.1	Fine	<25	<50	<100	<100
TP112	0-0.1	Fine	<25	<50	<100	<100
TP113	0-0.1	Fine	<25	<50	<100	<100
TP113 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP113	0.2-0.4	Fine	<25	<50	<100	<100
TP114	0-0.1	Fine	<25	<50	<100	<100
TP115	0-0.1	Fine	<25	<50	<100	<100
TP116	0-0.1	Fine	<25	<50	<100	<100
TP117	0-0.1	Fine	<25	<50	<100	<100
TP118	0-0.1	Fine	<25	<50	<100	<100
TP122	0-0.1	Fine	<25	<50	<100	<100
TP271	0-0.1	Fine	<25	<50	<100	<100
TP272	0-0.1	Fine	<25	<50	<100	<100
TP276	0-0.1	Fine	<25	<50	<100	<100
TP277	0-0.1	Fine	<25	<50	<100	<100
TP277 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP278	0-0.1	Fine	<25	<50	<100	<100
TP279	0-0.1	Fine	<25	<50	<100	<100
TP280	0-0.1	Fine	<25	<50	<100	<100
SDUP43	-	Fine	<25	<50	<100	<100
SDUP44	-	Fine	<25	<50	<100	<100
SDUP45	-	Fine	<25	<50	<100	<100
SDUP46	-	Fine	<25	<50	<100	<100
SDUP46 -	-	Fine	NA	<50	<100	<100
SDUP47	-	Fine	<25	<50	<100	<100
SDUP48	-	Fine	<25	<50	<100	<100
SDUP49	-	Fine	<25	<50	<100	<100
SDUP50	-	Fine	<25	<50	<100	<100
Total Number of Samples			36	37	37	37
Maximum Value			<PQL	<PQL	<PQL	<PQL
Concentration above the SAC			VALUE			
Concentration above the PQL			Bold			

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Soil Texture	C ₆ -C ₁₀ (F1) plus BTEX	>C ₁₀ -C ₁₆ (F2) plus naphthalene	>C ₁₆ -C ₃₄ (F3)	>C ₃₄ -C ₄₀ (F4)
TP101	0-0.1	Fine	800	1000	3500	10000
TP101 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP102	0-0.1	Fine	800	1000	3500	10000
TP103	0-0.1	Fine	800	1000	3500	10000
TP104	0-0.1	Fine	800	1000	3500	10000
TP107	0-0.1	Fine	800	1000	3500	10000
TP107	0.3-0.5	Fine	800	1000	3500	10000
TP107 - [LAB_DUP]	0.3-0.5	Fine	800	1000	3500	10000
TP110	0-0.1	Fine	800	1000	3500	10000
TP111	0-0.1	Fine	800	1000	3500	10000
TP112	0-0.1	Fine	800	1000	3500	10000
TP113	0-0.1	Fine	800	1000	3500	10000
TP113 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP113	0.2-0.4	Fine	800	1000	3500	10000
TP114	0-0.1	Fine	800	1000	3500	10000
TP115	0-0.1	Fine	800	1000	3500	10000
TP116	0-0.1	Fine	800	1000	3500	10000
TP117	0-0.1	Fine	800	1000	3500	10000
TP118	0-0.1	Fine	800	1000	3500	10000
TP122	0-0.1	Fine	800	1000	3500	10000
TP271	0-0.1	Fine	800	1000	3500	10000
TP272	0-0.1	Fine	800	1000	3500	10000
TP276	0-0.1	Fine	800	1000	3500	10000
TP277	0-0.1	Fine	800	1000	3500	10000
TP277 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP278	0-0.1	Fine	800	1000	3500	10000
TP279	0-0.1	Fine	800	1000	3500	10000
TP280	0-0.1	Fine	800	1000	3500	10000
SDUP43	-	Fine	800	1000	3500	10000
SDUP44	-	Fine	800	1000	3500	10000
SDUP45	-	Fine	800	1000	3500	10000
SDUP46	-	Fine	800	1000	3500	10000
SDUP46 -	-	Fine	NA	1000	3500	10000
SDUP47	-	Fine	800	1000	3500	10000
SDUP48	-	Fine	800	1000	3500	10000
SDUP49	-	Fine	800	1000	3500	10000
SDUP50	-	Fine	800	1000	3500	10000

TABLE S4
SOIL LABORATORY RESULTS COMPARED TO DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₃₄	>C ₃₄ -C ₄₀	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 - Direct contact Criteria		5,100	3,800	5,300	7,400	120	18,000	5,300	15,000	1,900	
Site Use		RECREATIONAL - DIRECT SOIL CONTACT									
Sample Reference	Sample Depth										
TP101	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP101 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP102	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP104	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP107	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP107	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP107 - [LAB_DUP]	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP110	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP111	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP112	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP113	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP113 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP113	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP114	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP115	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP116	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP117	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP118	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP122	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP271	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP272	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP276	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP277	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP277 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP278	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP279	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP280	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP43	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP44	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP45	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP46	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP46 - [LAB_DUP]	-	NA	<50	<100	<100	NA	NA	NA	NA	NA	0
SDUP47	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP48	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP49	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP50	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
Total Number of Samples		36	37	37	37	36	36	36	36	36	37
Maximum Value		<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL
Concentration above the SAC											
Concentration above the PQL											

TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-C:Public open space; secondary schools; and footpaths

FIELD DATA															LABORATORY DATA												
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation % (w/w)	FA and AF Estimation % (w/w)	
SAC	No					0.02					0.001					0.001					0.02					0.001	
23/09/2021	TP101	0-0.1	No	10	7,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279001	TP101	0-0.1	502.44	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
23/09/2021	TP102	0-0.1	No	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP103	0-0.1	No	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279001	TP103	0-0.1	313.99	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
23/09/2021	TP103	0.1-0.2	NA	10	8,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP104	0-0.1	No	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP104	0.1-0.3	NA	10	6,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP107	0-0.1	No	10	9,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279001	TP107	0-0.1	369.07	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
23/09/2021	TP107	0.1-0.2	NA	10	7,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP110	0-0.1	No	10	6,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP110	0.1-0.3	NA	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP111	0-0.1	No	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279001	TP111	0-0.1	416.3	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
24/09/2021	TP111	0.1-0.4	NA	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP112	0-0.1	No	10	10,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP112	0.1-0.3	NA	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP113	0-0.1	No	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279001	TP113	0-0.1	367.96	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
24/09/2021	TP113	0.1-0.2	NA	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP114	0-0.1	No	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP114	0.1-0.7	NA	10	11,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP115	0-0.1	No	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP116	0-0.1	No	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP116	0.1-0.3	NA	10	9,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP117	0-0.1	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP117	0.1-0.2	NA	10	9,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP118	0-0.1	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP122	0-0.1	No	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24/09/2021	TP122	0.1-0.2	NA	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP271	0-0.1	No	10	6,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP271	0.1-0.2	NA	10	6,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP272	0-0.1	No	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP276	0-0.1	No	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP276	0.1-0.2	NA	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP277	0-0.1	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP277	0.1-0.3	NA	10	8,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP278	0-0.1	No	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP279	0-0.1	No	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP279	0.1-0.2	NA	10	6,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP280	0-0.1	No	10	7,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23/09/2021	TP280	0.1-0.2	NA	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB11	--	280	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB12	--	419.39	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB13	--	440	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB14	--	375.28	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB15	--	500	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB16	--	360.67	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB17	--	440	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB18	--	538.56	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB19	--	380	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB20	--	349.48	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB21	--	450	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB22	--	437.42	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269533	SDUPASB23	--	490	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	279001	SDUPASB24	--	435.2	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001	

Concentration above the SAC

VALUE

TABLE S6 SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs All data in mg/kg unless stated otherwise																							
Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																			
				pH	CEC (cmolc/kg)	Clay Content (% clay)	AGED HEAVY METALS-EILs					EILs		ESLs				ESLs					
							Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	>C ₁₆ -C ₃₄ (F3)	>C ₃₄ -C ₄₀ (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	Sample Depth	Sample Description	Soil Texture																				
TP101	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	3	62	33	3	34	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP101 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	3	61	29	2	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP102	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	46	20	2	130	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP103	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	72	35	3	42	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.2
TP104	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	57	28	2	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.07
TP107	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	94	31	4	44	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.2
TP107	0.3-0.5	Silty clay	Fine	6.13	15.54	NA	<4	6	150	10	4	25	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP107 - [LAB_DUP]	0.3-0.5	Silty clay	Fine	6.13	15.54	NA	<4	6	150	9	4	27	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP110	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	63	17	2	14	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP111	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	60	22	2	20	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP112	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	3	57	17	2	14	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP113	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	75	24	3	29	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP113 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	85	27	3	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP113	0.2-0.4	Silty clay	Fine	6.13	15.54	NA	<4	10	280	20	6	32	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP114	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	55	17	2	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP115	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	3	51	16	2	12	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP116	0-0.1	Fill: silty gravelly clay	Fine	6.13	15.54	NA	<4	4	78	23	3	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.05
TP117	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	5	71	24	2	23	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP118	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	3	43	15	1	14	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP122	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	4	60	18	2	19	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP271	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	18	25	15	4	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP272	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	11	37	23	3	32	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP276	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	19	27	15	5	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.05
TP277	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	19	34	27	7	45	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.09
TP277 - [LAB_DUP]	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	15	32	23	6	43	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP278	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	17	23	15	6	33	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
TP279	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	16	25	17	5	36	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	0.1
TP280	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	<4	19	25	15	7	34	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
SDUP43	-	Soil DUP	Fine	6.13	15.54	NA	<4	10	34	19	3	32	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
SDUP44	-	Soil DUP	Fine	6.13	15.54	NA	<4	21	26	18	5	37	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP45	-	Soil DUP	Fine	6.13	15.54	NA	<4	21	32	20	6	33	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
SDUP46	-	Soil DUP	Fine	6.13	15.54	NA	<4	21	37	30	8	57	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.1
SDUP46 - [LAB_DUP]	-	Soil DUP	Fine	6.13	15.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50	<100	<100	NA	NA	NA	NA	0.1
SDUP47	-	Soil DUP	Fine	6.13	15.54	NA	<4	4	73	24	3	21	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
SDUP48	-	Soil DUP	Fine	6.13	15.54	NA	<4	4	66	21	2	19	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP48 - [LAB_DUP]	-	Soil DUP	Fine	6.13	15.54	NA	<4	5	65	23	2	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP49	-	Soil DUP	Fine	6.13	15.54	NA	<4	5	58	20	2	15	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
SDUP50	-	Soil DUP	Fine	6.13	15.54	NA	<4	5	60	21	3	25	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
Total Number of Samples				38	38	0	37	37	37	37	37	37	36	36	36	37	37	37	36	36	36	36	37
Maximum Value				6.13	15.54	NA	<PQL	21	280	35	8	130	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	0.2
Concentration above the SAC				VALUE																			
Concentration above the PQL				Bold																			
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below																							

EIL AND ESL ASSESSMENT CRITERIA																								
Sample Reference	Sample Depth	Sample Description	Soil Texture	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	>C ₁₆ -C ₃₄ (F3)	>C ₃₄ -C ₄₀ (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P	
TP101 - [LAB_DUP]	TP101	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
		0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP102	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP103	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP104	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
TP107 - [LAB_DUP]	TP107	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
		0.3-0.5	Silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
		0.3-0.5	Silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
	TP110	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP111	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
TP113 - [LAB_DUP]	TP112	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP113	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
		0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP113	0.2-0.4	Silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
	TP114	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP115	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP116	0-0.1	Fill: silty gravelly clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP117	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP118	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP122	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
TP277 - [LAB_DUP]	TP271	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP272	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP276	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP277	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
		0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP278	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP279	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	TP280	0-0.1	Fill: silty clay	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	180	180	120	1300	5600	65	105	125	45	20
	SDUP43	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
	SDUP44	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
SDUP46 - [LAB_DUP]	SDUP45	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
	SDUP46	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
		-	Soil DUP	Fine	6.13	15.54	NA	--	--	--	--	--	--	--	--	120	--	1300	5600	--	--	--	--	20
	SDUP47	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
	SDUP48	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20
SDUP48 - [LAB_DUP]	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	--	--	--	--	--	--	--	--	--	--	--	--
SDUP49	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20	
SDUP50	-	Soil DUP	Fine	6.13	15.54	NA	100	200	230	1200	280	670	170	--	180	120	1300	5600	65	105	125	45	20	

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled	C ₆ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₂₈	C ₂₉ -C ₃₆	Total C ₁₀ -C ₃₆	Benzene	Toluene	Ethyl benzene	Total Xylenes		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	Sample Depth	Sample Description																									
TP101	0-0.1	Fill: silty clay	<4	<0.4	3	62	33	<0.1	3	34	1.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP101 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	3	61	29	<0.1	2	30	1.4	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP102	0-0.1	Fill: silty clay	<4	<0.4	4	46	20	<0.1	2	130	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP103	0-0.1	Fill: silty clay	<4	<0.4	4	72	35	<0.1	3	42	2.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP104	0-0.1	TP104	<4	<0.4	4	57	28	<0.1	2	28	0.3	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP107	0-0.1	Fill: silty clay	<4	<0.4	4	94	31	<0.1	4	44	1.6	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP107	0.3-0.5	Silty clay	<4	<0.4	6	150	10	<0.1	4	25	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP107 - [LAB_DUP]	0.3-0.5	Silty clay	<4	<0.4	6	150	9	<0.1	4	27	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP110	0-0.1	Fill: silty clay	<4	<0.4	4	63	17	<0.1	2	14	1.4	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP111	0-0.1	Fill: silty clay	<4	<0.4	4	60	22	<0.1	2	20	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP112	0-0.1	TP112	<4	<0.4	3	57	17	<0.1	2	14	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP113	0-0.1	Fill: silty clay	<4	<0.4	4	75	24	<0.1	3	29	1.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP113 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	4	85	27	<0.1	3	33	1.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP113	0.2-0.4	Silty clay	<4	<0.4	10	280	20	<0.1	6	32	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP114	0-0.1	Fill: silty clay	<4	<0.4	4	55	17	<0.1	2	18	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP115	0-0.1	Fill: silty clay	<4	<0.4	3	51	16	<0.1	2	12	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP116	0-0.1	Fill: silty gravelly clay	<4	<0.4	4	78	23	<0.1	3	28	0.3	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP117	0-0.1	Fill: silty clay	<4	<0.4	5	71	24	<0.1	2	23	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP118	0-0.1	Fill: silty clay	<4	<0.4	3	43	15	<0.1	1	14	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP122	0-0.1	TP122	<4	<0.4	4	60	18	<0.1	2	19	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP271	0-0.1	Fill: silty clay	<4	<0.4	18	25	15	<0.1	4	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP272	0-0.1	Fill: silty clay	<4	<0.4	11	37	23	<0.1	3	32	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP276	0-0.1	Fill: silty clay	<4	<0.4	19	27	15	<0.1	5	27	0.05	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP277	0-0.1	Fill: silty clay	<4	<0.4	19	34	27	<0.1	7	45	0.71	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP277 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	15	32	23	<0.1	6	43	0.88	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP278	0-0.1	Fill: silty clay	<4	<0.4	17	23	15	<0.1	6	33	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP279	0-0.1	Fill: silty clay	<4	<0.4	16	25	17	<0.1	5	36	0.84	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP280	0-0.1	Fill: silty clay	<4	<0.4	19	25	15	<0.1	7	34	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP43	-	Soil DUP	<4	<0.4	10	34	19	<0.1	3	32	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP44	-	Soil DUP	<4	<0.4	21	26	18	0.1	5	37	<0.05	<0.05	NA	NA	NA	NA											

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	TP101 0-0.1	TP101 - [LAB DUP] 0-0.1	TP101 0.8-1.0	TP277 0-0.1	TP277 - [LAB_DUP] 0-0.1	TP277 0.8-0.9	TP280 0-0.1	TP280 0.7-0.85	SDUPPFAS7 -	SDUPPFAS8 -	SDUPPFAS8 -	SDUPPFAS9 -
PFAS Compound															
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	0.9	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	21	21	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluoroheptanoic acid	0.1	NSL	NSL	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	NSL	22	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	22
Total Positive PFOS & PFOA	0.1	NSL	NSL	21	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Total Positive PFAS	0.1	NSL	NSL	23	24	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	23
Positive PFAS result PFAS result above the SAC Bold Bold															

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Public Open Space	TP101 0-0.1	TP101 - [LAB DUP] 0-0.1	TP101 0.8-1.0	TP277 0-0.1	TP277 - [LAB_DUP] 0-0.1	TP277 0.8-0.9	TP280 0-0.1	TP280 0.7-0.85	SDUPPFAS7 -	SDUPPFAS8 -	SDUPPFAS8 -	SDUPPFAS9 -
PFAS Compound														
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	0.9	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.1
Perfluoroheptanesulfonic acid	0.1	NSL	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Perfluorooctanesulfonic acid PFOS	0.1	NSL	21	21	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	0.3	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluoroheptanoic acid	0.1	NSL	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Perfluorooctanoic acid PFOA	0.1	10,000	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluorononanoic acid	0.1	NSL	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1,000	22	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	22
Total Positive PFOS & PFOA	0.1	NSL	21	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Total Positive PFAS	0.1	NSL	23	24	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	23
Positive PFAS result Bold PFAS result above the SAC Bold														

TABLE P3 SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION Units are µg/Kg unless stated otherwise.															
	POL Envirolab Services	SCC1	SCC2	TP101 0-0.1	TP101 - [LAB DLP] 0-0.1	TP101 0.8-1.0	TP277 0-0.1	TP277 - [LAB DLP] 0-0.1	TP277 0.8-0.9	TP280 0-0.1	TP280 0.7-0.85	SDUPPFAS7 -	SDUPPFAS8 -	SDUPPFAS8 -	SDUPPFAS9 -
PFAS Compound															
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	0.9	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	21	21	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluoroheptanoic acid	0.1	NSL	NSL	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid ethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid ethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	22	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	22
Total Positive PFOS & PFOA	0.1	NSL	NSL	21	22	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	21
Total Positive PFAS	0.1	NSL	NSL	23	24	0.1	0.4	0.3	<0.1	0.2	<0.1	0.2	0.2	0.1	23
Result above SCC1 Criteria Bold Result above SCC2 Criteria Bold															

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TABLE P4
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	TP101 0-0.1	TP101 0.8-1.0	TP277 0-0.1	TP277 0-0.1	TP277 0.8-0.9	TP280 0-0.1	TP280 0.7-0.85
PFAS Compound										
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamidethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamidethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulfonamidacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulfonamidacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Result above TCLP1 Criteria
Result above TCLP2 Criteria





**Soil Batch 5 -
Contamination Data Summary Tables**

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ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCL after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{Pos}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLS:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with high traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE 51
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-C: 'Public open space; secondary schools; and footpaths'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - EnviroLab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100	
Site Assessment Criteria (SAC)			300	90	300	17000	600	80	1200	30000	300	3	10	340	400	10	70	400	10	250	1	Detected/Not Detected
Sample Reference	Sample Depth	Sample Description																				
TP119	0-0.1	Fill: silty clay	<4	<0.4	23	72	27	0.1	3	31	0.64	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP119 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	4	63	23	0.1	2	28	0.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP119 - [TRIPLICATE]	0-0.1	Fill: silty clay	<4	<0.4	5	58	19	<0.1	2	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP120	0-0.1	Fill: silty clay	<4	<0.4	5	61	22	<0.1	2	18	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP121	0-0.1	Fill: silty clay	<4	<0.4	4	59	23	<0.1	2	18	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP124	0-0.1	Fill: silty clay	<4	<0.4	4	72	25	<0.1	2	29	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP125	0-0.1	Fill: silty clay	<4	<0.4	4	59	24	<0.1	2	23	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP125	0.1-0.3	Silty clay	<4	<0.4	4	78	13	<0.1	2	13	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP126	0-0.1	Fill: silty clay	<4	<0.4	4	70	20	<0.1	2	22	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP127	0-0.1	Fill: silty clay	<4	<0.4	6	70	22	<0.1	3	24	0.59	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP128	0-0.1	Fill: silty clay	<4	<0.4	5	45	17	<0.1	3	20	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP129	0-0.1	Fill: silty clay	<4	<0.4	4	47	19	<0.1	2	15	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP129 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	5	61	20	<0.1	2	17	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP130	0-0.1	Fill: silty clay	<4	<0.4	4	84	19	<0.1	2	24	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
TP130	0.2-0.4	Silty clay	<4	<0.4	5	120	11	<0.1	2	14	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP131	0-0.1	Fill: silty clay	<4	<0.4	9	62	49	<0.1	3	48	0.55	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP132	0-0.1	Fill: silty clay	<4	<0.4	4	68	29	<0.1	2	32	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP133	0-0.1	Fill: silty clay	<4	<0.4	4	81	19	<0.1	2	22	1.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
TP133	0.2-0.4	Silty clay	<4	<0.4	6	210	12	<0.1	3	18	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP134	0-0.1	Fill: silty clay	<4	<0.4	4	98	19	<0.1	2	27	3.5	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
TP134	0.1-0.3	Fill: silty clay	<4	<0.4	2	76	6	<0.1	1	9	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TP135	0-0.1	Fill: silty clay	<4	<0.4	5	69	17	<0.1	2	12	0.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP1-1	0.5	Fill: silty sand	<4	<0.4	5	130	14	<0.1	4	36	1.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP1-2	0.5	Fill: silty sand	<4	<0.4	7	140	20	<0.1	4	46	3.8	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP1-3	0.5	Fill: silty sand	<4	<0.4	5	120	12	<0.1	4	37	3.6	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP1-3 - [LAB_DUP]	0.5	Fill: silty sand	<4	<0.4	8	110	13	<0.1	5	42	0.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
SP2-1	0.5	Fill: silty sandy clay	<4	<0.4	8	140	15	<0.1	4	40	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP2-2	0.5	Fill: silty sandy clay	<4	<0.4	5	130	15	<0.1	4	48	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP2-3	0.5	Fill: silty sandy clay	<4	<0.4	7	140	15	<0.1	4	38	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP3-1	0.5	Fill: silty clay	<4	<0.4	13	56	19	<0.1	6	50	0.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP3-2	0.5	Fill: silty clay	4	<0.4	15	44	26	<0.1	4	47	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP3-3	0.5	Fill: silty clay	<4	<0.4	11	81	10	<0.1	4	28	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP4-1	0.5	Fill: silty gravelly clay	<4	<0.4	5	150	10	<0.1	5	34	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP4-2	0.5	Fill: silty gravelly clay	<4	<0.4	23	46	37	<0.1	4	100	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP4-3	0.5	Fill: silty gravelly clay	5	<0.4	8	50	72	0.8	3	66	0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP5-1	0.5	Fill: silty sandy gravel	<4	<0.4	12	160	210	<0.1	7	260	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP5-2	0.5	Fill: silty sandy gravel	<4	<0.4	4	94	32	<0.1	3	73	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP5-3	0.5	Fill: silty clay	<4	<0.4	9	69	10	<0.1	3	24	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP5-3 - [LAB_DUP]	0.5	Fill: silty clay	<4	<0.4	12	67	17	<0.1	4	28	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	
SP5-3 - [TRIPLICATE]	0.5	Fill: silty clay	<4	<0.4	12	72	13	<0.1	4	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SP6-1	0.5	Fill: silty clay	<4	<0.4	9	69	34	<0.1	4	85	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP6-2	0.5	Fill: silty clay	<4	<0.4	10	52	29	<0.1	4	36	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP6-3	0.5	Fill: silty clay	7	<0.4	6	70	58	<0.1	2	48	13	1.5	<0.1	1.3	0.2	2.6	<0.1	0.2	1	1	Not Detected	
SP7-1	0.5	Fill: silty clay	<4	<0.4	7	74	18	<0.1	4	31	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP7-2	0.5	Fill: silty clay	<4	<0.4	10	50	10	<0.1	4	32	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP7-3	0.5	Fill: silty clay	<4	<0.4	14	59	10	<0.1	6	35	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP8-1	0.5	Fill: silty clay	5	<0.4	8	63	65	0.2	3	52	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected	
SP8-2	0.5	Fill: silty clay	<4	<0.4	10	29	11	<0.1	5	44	<0.05	&										

All data in mg/kg unless stated otherwise

All data in mg/kg unless stated otherwise

Concentration above the SAC

Concentration above the PQL

The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

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[illegible]

TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_u, C_{ul} (F3) plus BTX	C_{ul}, C_{ul} (F2) plus naphthalene	C_{ul}, C_{ul} (F3)	C_{ul}, C_{ul} (F4)
PCL - Envirolab Services			25	50	100	100
NEMF 2013 Land Use Category			RESIDENTIAL PARKLAND & PUBLIC OPEN SPACE			
Sample Reference	Sample Depth	Soil Texture				
TP119	0-0.1	Fine	<25	<50	<100	<100
TP119 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP120	0-0.1	Fine	<25	<50	<100	<100
TP121	0-0.1	Fine	<25	<50	<100	<100
TP124	0-0.1	Fine	<25	<50	<100	<100
TP125	0-0.1	Fine	<25	<50	<100	<100
TP125	0.1-0.3	Fine	<25	<50	<100	<100
TP126	0-0.1	Fine	<25	<50	<100	<100
TP127	0-0.1	Fine	<25	<50	<100	<100
TP128	0-0.1	Fine	<25	<50	<100	<100
TP129	0-0.1	Fine	<25	<50	<100	<100
TP129 - [LAB_DUP]	0-0.1	Fine	<25	<50	<100	<100
TP130	0-0.1	Fine	<25	<50	<100	<100
TP130	0.2-0.4	Fine	<25	<50	<100	<100
TP131	0-0.1	Fine	<25	<50	<100	<100
TP132	0-0.1	Fine	<25	<50	<100	<100
TP133	0-0.1	Fine	<25	<50	<100	<100
TP133	0.2-0.4	Fine	<25	<50	<100	<100
TP134	0-0.1	Fine	<25	<50	<100	<100
TP134	0.1-0.3	Fine	<25	<50	<100	<100
TP135	0-0.1	Fine	<25	<50	<100	<100
SP1-1	0.5	Coarse	<25	<50	<100	<100
SP1-2	0.5	Coarse	<25	<50	<100	<100
SP1-3	0.5	Coarse	<25	<50	<100	<100
SP1-3 - [LAB_DUP]	0.5	Coarse	<25	<50	<100	<100
SP2-1	0.5	Fine	<25	<50	<100	<100
SP2-2	0.5	Fine	<25	<50	<100	<100
SP2-3	0.5	Fine	<25	<50	<100	<100
SP3-1	0.5	Fine	<25	<50	<100	<100
SP3-2	0.5	Fine	<25	<50	<100	<100
SP3-3	0.5	Fine	<25	<50	<100	<100
SP4-1	0.5	Fine	<25	<50	<100	<100
SP4-2	0.5	Fine	<25	<50	<100	<100
SP4-3	0.5	Fine	<25	<50	<100	<100
SP5-1	0.5	Coarse	<25	<50	260	130
SP5-2	0.5	Coarse	<25	<50	<100	<100
SP5-3	0.5	Fine	<25	<50	<100	<100
SP5-3 - [LAB_DUP]	0.5	Fine	<25	<50	<100	<100
SP6-1	0.5	Fine	<25	<50	<100	<100
SP6-2	0.5	Fine	<25	<50	<100	<100
SP6-3	0.5	Fine	<25	<50	<100	<100
SP7-1	0.5	Fine	<25	<50	<100	<100
SP7-2	0.5	Fine	<25	<50	<100	<100
SP7-3	0.5	Fine	<25	<50	<100	<100
SP8-1	0.5	Fine	<25	<50	<100	<100
SP8-2	0.5	Fine	<25	<50	<100	<100
SP8-3	0.5	Fine	<25	<50	<100	<100
SP9-1	0.5	Fine	<25	<50	<100	<100
SP9-2	0.5	Fine	<25	<50	<100	<100
SP9-3	0.5	Fine	<25	<50	<100	<100
SP10-1	0.5	Fine	<25	<50	<100	<100
SP10-2	0.5	Fine	<25	<50	<100	<100
SP10-3	0.5	Fine	<25	<50	<100	<100
SP10-3 - [LAB_DUP]	0.5	Fine	<25	<50	<100	<100
SP11-1	0.5	Fine	<25	<50	<100	<100
SP11-2	0.5	Fine	<25	<50	<100	<100
SP11-3	0.5	Fine	<25	<50	<100	<100
SP11-3 - [LAB_DUP]	0.5	Fine	<25	<50	<100	<100
SP12-1&5	0.5	Fine	<25	<50	<100	<100
SP12-2	0.5	Fine	<25	<50	<100	<100
SP12-3	0.5	Fine	<25	<50	<100	<100
SP13-1	0.5	Fine	<25	<50	<100	<100
SP13-2	0.5	Fine	<25	<50	<100	<100
SP13-3	0.5	Fine	<25	<50	<100	<100
SP13-3 - [LAB_DUP]	0.5	Fine	<25	<50	<100	<100
SOUP1	-	Fine	<25	<50	<100	<100
SOUP2 - [LAB_DUP]	-	Fine	<25	<50	<100	<100
SOUP3	-	Fine	<25	<50	<100	<100
SOUP4	-	Fine	<25	<50	<100	<100
SOUP5	-	Fine	<25	<50	<100	<100
SOUP6	-	Fine	<25	<50	<100	<100
SOUP7	-	Fine	<25	<50	<100	<100
SOUPAS827	-	NA	NA	NA	NA	NA
SOUPAS831	-	Fine	NA	NA	NA	NA
SOUP1	-	Fine	<25	<50	<100	<100
SOUP2	-	Fine	<25	<50	<100	<100
SOUP3	-	Fine	<25	<50	<100	<100
SOUP4	-	Fine	<25	<50	<100	<100
Total Number of Samples			77	77	77	77
Maximum Value			<PCL	<PCL	260	130
Concentration above the SAC			VALUE			
Concentration above the PCL			BOLD			

MANAGEMENT LIMIT ASSESSMENT CRITERIA

			C_u, C_{ul} (F3) plus BTX	C_{ul}, C_{ul} (F2) plus naphthalene	C_{ul}, C_{ul} (F3)	C_{ul}, C_{ul} (F4)
Sample Reference	Sample Depth	Soil Texture				
TP119	0-0.1	Fine	800	1000	3500	10000
TP119 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP120	0-0.1	Fine	800	1000	3500	10000
TP121	0-0.1	Fine	800	1000	3500	10000
TP124	0-0.1	Fine	800	1000	3500	10000
TP125	0-0.1	Fine	800	1000	3500	10000
TP125	0.1-0.3	Fine	800	1000	3500	10000
TP126	0-0.1	Fine	800	1000	3500	10000
TP127	0-0.1	Fine	800	1000	3500	10000
TP128	0-0.1	Fine	800	1000	3500	10000
TP129	0-0.1	Fine	800	1000	3500	10000
TP129 - [LAB_DUP]	0-0.1	Fine	800	1000	3500	10000
TP130	0-0.1	Fine	800	1000	3500	10000
TP131	0-0.1	Fine	800	1000	3500	10000
TP132	0-0.1	Fine	800	1000	3500	10000
TP133	0-0.1	Fine	800	1000	3500	10000
TP133	0.2-0.4	Fine	800	1000	3500	10000
TP134	0-0.1	Fine	800	1000	3500	10000
TP135	0-0.1	Fine	800	1000	3500	10000
SP1-1	0.5	Coarse	700	1000	2500	10000
SP1-2	0.5	Coarse	700	1000	2500	10000
SP1-3	0.5	Coarse	700	1000	2500	10000
SP1-3 - [LAB_DUP]	0.5	Coarse	700	1000	2500	10000
SP2-1	0.5	Fine	800	1000	3500	10000
SP2-2	0.5	Fine	800	1000	3500	10000
SP2-3	0.5	Fine	800	1000	3500	10000
SP3-1	0.5	Fine	800	1000	3500	10000
SP3-2	0.5	Fine	800	1000	3500	10000
SP3-3	0.5	Fine	800	1000	3500	10000
SP4-1	0.5	Fine	800	1000	3500	10000
SP4-2	0.5	Fine	800	1000	3500	10000
SP4-3	0.5	Fine	800	1000	3500	10000
SP5-1	0.5	Fine	700	1000	2500	10000
SP5-2	0.5	Fine	700	1000	2500	10000
SP5-3	0.5	Fine	800	1000	3500	10000
SP5-3 - [LAB_DUP]	0.5	Fine	800	1000	3500	10000
SP6-1	0.5	Fine	800	1000	3500	10000
SP6-2	0.5	Fine	800	1000	3500	10000
SP6-3	0.5	Fine	800	1000	3500	10000
SP7-1	0.5	Fine	800	1000	3500	10000
SP7-2	0.5	Fine	800	1000	3500	10000
SP7-3	0.5	Fine	800	1000	3500	10000
SP8-1	0.5	Fine	800	1000	3500	10000
SP8-2	0.5	Fine	800	1000	3500	10000
SP8-3	0.5	Fine	800	1000	3500	10000
SP9-1	0.5	Fine	800	1000	3500	10000
SP9-2	0.5	Fine	800	1000	3500	10000
SP9-3	0.5	Fine	800	1000	3500	10000
SP10-1	0.5	Fine	800	1000	3500	10000
SP10-2	0.5	Fine	800	1000	3500	10000
SP10-3	0.5	Fine	800	1000	3500	10000
SP10-3 - [LAB_DUP]	0.5	Fine	800	1000	3500	10000
SP11-1	0.5	Fine	800	1000	3500	10000
SP11-2	0.5	Fine	800	1000	3500	10000
SP11-3	0.5	Fine	800	1000	3500	10000
SP11-3 - [LAB_DUP]	0.5	Fine	800	1000	3500	10000
SP12-1&5	0.5	Fine	800	1000	3500	10000
SP12-2	0.5	Fine	800	1000	3500	10000
SP12-3	0.5	Fine	800	1000	3500	10000
SP13-1	0.5	Fine	800	1000	3500	10000
SP13-2	0.5	Fine	800	1000	3500	10000
SP13-3	0.5	Fine	800	1000	3500	10000
SP13-3 - [LAB_DUP]	0.5	Fine	800	1000	3500	10000
SOUP1	-	Fine	800	1000	3500	10000
SOUP2	-	Fine	800	1000	3500	10000
SOUP2 - [LAB_DUP]	-	Fine	800	1000	3500	10000
SOUP3	-	Fine	800	1000	3500	10000
SOUP4	-	Fine	800	1000	3500	10000
SOUP5	-	Fine	800	1000	3500	10000
SOUP6	-	Fine	800	1000	3500	10000
SOUP7	-	Fine	800	1000	3500	10000
SOUPAS827	-	Fine	NA	NA	NA	NA
SOUPAS831	-	Fine	NA	NA	NA	NA
SOUP1	-	Fine	800	1000	3500	10000
SOUP2	-	Fine	800	1000	3500	10000
SOUP3	-	Fine	800	1000	3500	10000
SOUP4	-	Fine	800	1000	3500	10000

TABLE S4 SOIL LABORATORY RESULTS COMPARED TO DIRECT CONTACT CRITERIA All data in mg/kg unless stated otherwise											
Analyte		C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₃₄	>C ₃₄ -C ₄₀	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 - Direct contact Criteria		5,100	3,800	5,300	7,400	120	18,000	5,300	15,000	1,900	
Site Use		RECREATIONAL - DIRECT SOIL CONTACT									
Sample Reference	Sample Depth										
TP119	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP119 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP120	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP121	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP124	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP125	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP125	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP126	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP127	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP128	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP129	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP129 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP130	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP130	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP131	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP132	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP133	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP133	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP134	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP134	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
TP135	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP1-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP1-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP1-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP1-3 - [LAB_DUP]	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP2-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP2-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP2-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP3-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP3-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP3-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP4-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP4-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP4-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP5-1	0.5	<25	<50	260	130	<0.2	<0.5	<1	<3	<1	0
SP5-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP5-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP5-3 - [LAB_DUP]	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP6-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP6-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP6-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP7-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP7-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP7-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP8-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP8-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP8-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP9-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP9-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP9-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP10-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP10-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP10-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP10-3 - [LAB_DUP]	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP11-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP11-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP11-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP11-3 - [LAB_DUP]	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP12-10.5	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP12-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP12-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP13-1	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP13-2	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP13-3	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SP13-3 - [LAB_DUP]	0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP51	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP52	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP52 - [LAB_DUP]	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP53	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP54	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP55	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP56	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP57	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
SDUP1	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP2	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP3	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP4	-	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples		77	77	77	77	77	77	77	77	77	74
Maximum Value		<PQL	<PQL	260	130	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL
Concentration above the SAC		VALUE									
Concentration above the PQL		Bold									

TABLE 55 ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS HSL-C:Public open space; secondary schools; and footpaths																										
FIELD DATA															LABORATORY DATA											
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	Asbestos from ACM in soil (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	Asbestos from ACM <7mm in soil (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	Asbestos from FA in soil (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation % (w/w)	FA and AF Estimation % (w/w)
SAC																										
No																										
0.02																										
0.001																										
0.001																										
27/09/2021	TP119	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP119	0.1-0.3	NA	10	8,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP120	0-0.1	No	10	7,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP120	0.1-0.3	NA	10	6,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP121	0-0.1	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP121	0.1-0.2	NA	10	7,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP124	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP125	0-0.1	No	10	8,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP125	0.1-0.3	NA	10	6,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP126	0-0.1	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP127	0-0.1	No	10	9,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP127	0.1-0.2	NA	10	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP128	0-0.1	No	10	8,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP129	0-0.1	No	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP129	0.1-0.3	NA	10	9,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP130	0-0.1	No	10	7,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	TP130	0-0.1	481.37	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
27/09/2021	TP130	0.1-0.2	NA	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP131	0-0.1	No	10	6,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP131	0.1-0.3	NA	10	9,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27/09/2021	TP132	0-0.1	No	10	7,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28/09/2021	TP133	0-0.1	No	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	TP133	0-0.1	432.91	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	TP133	0.1-0.2	NA	10	7,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28/09/2021	TP134	0-0.1	No	10	7,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28/09/2021	TP134	0.1-0.5	NA	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28/09/2021	TP135	0-0.1	No	10	7,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	TP135	0-0.1	425.93	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	TP135	0.1-0.2	NA	10	9,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28/09/2021	SP1-1	0.5	No	10	10,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP1-1	0.5	736.63	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP1-2	0.5	No	10	11,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP1-2	0.5	762.81	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP1-3	0.5	No	10	8,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP1-3	0.5	732.27	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP2-1	0.5	No	10	11,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP2-1	0.5	676.51	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP2-2	0.5	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP2-2	0.5	639.77	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP2-3	0.5	No	10	10,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP2-3	0.5	731.55	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP3-1	0.5	No	10	8,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP3-1	0.5	458.77	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP3-2	0.5	No	10	9,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP3-2	0.5	558.44	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP3-3	0.5	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP3-3	0.5	508.15	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP4-1	0.5	No	10	11,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP4-1	0.5	463.31	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP4-2	0.5	No	10	8,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP4-2	0.5	719.21	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP4-3	0.5	No	10	9,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP4-3	0.5	569.51	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP5-1	0.5	No	10	11,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP5-1	0.5	813.67	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP5-2	0.5	No	10	9,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP5-2	0.5	544.15	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP5-3	0.5	No	10	9,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP5-3	0.5	627.26	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP6-1	0.5	No	10	11,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP6-1	0.5	512.03	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP6-2	0.5	No	10	9,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP6-2	0.5	551.35	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP6-3	0.5	No	10	8,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP6-3	0.5	465.8	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP7-1	0.5	No	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP7-1	0.5	539.28	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP7-2	0.5	No	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP7-2	0.5	614.11	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP7-3	0.5	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP7-3	0.5	487.44	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP8-1	0.5	No	10	8,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP8-1	0.5	526.87	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP8-2	0.5	No	10	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP8-2	0.5	390.01	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP8-3	0.5	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP8-3	0.5	566.95	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP9-1	0.5	No	10	8,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP9-1	0.5	405.64	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP9-2	0.5	No	10	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP9-2	0.5	477.06	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP9-3	0.5	No	10	7,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP9-3	0.5	464.4	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP10-1	0.5	No	10	7,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP10-1	0.5	522.9	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP10-2	0.5	No	10	8,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP10-2	0.5	456.47	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP10-3	0.5	No	10	8,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	279318	SP10-3	0.5	509.43	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	--	--	<0.01	<0.001
28/09/2021	SP11-1	0.5	No	10	11,100	No ACM observed	--	--	No ACM <																	

TABLE 56
SOIL LABORATORY RESULTS COMPARED TO NEMF 2013 REL AND ERL
All data in mg/kg unless stated otherwise

Use Category					pH	CEC (cmol/kg)		Clay Content (%)	AGED HEAVY METALS ERLs										ERLs									
						Arsenic	Chromium		Copper	Lead	Nickel	Zinc	Naphthalene	DOT	D1	D2	C ₆ -C ₁₀ (F2)	>C ₁₀ -C ₂₅ (F2)	>C ₂₅ -C ₄₀ (F3)	>C ₄₀ -C ₆₀ (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	BaP			
PCB - Environmental Services						1	4	1	1	4	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	1	0.05		
URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																												
Sample Reference	Sample Depth	Sample Description	Soil Texture						NEL	13	28	183	5	122	NEL	NEL	NEL	NEL	NEL	NEL	NEL	NEL	NEL	NEL	NEL	NEL		
TP119	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	23	72	27	3	31	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.1			
TP119 - [IAB, DUP]		Fine silty clay	Fine	6.13	15.54	NA	<4	4	63	23	2	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.09			
TP119 - [REPLICATE]		Fine silty clay	Fine	6.13	15.54	NA	<4	4	58	19	2	14	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.05			
TP120	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	5	61	22	2	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP121	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	59	23	2	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP122	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	72	25	2	29	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP123	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	59	24	2	23	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP124	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	78	13	2	13	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP125	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	70	20	2	22	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP126	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	6	70	22	3	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.08			
TP127	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	5	47	17	3	20	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP128	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	5	47	19	2	15	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP129 - [IAB, DUP]		Fine silty clay	Fine	6.13	15.54	NA	<4	5	61	20	2	17	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP130	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	84	19	2	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP131	0-0.4	Silty clay	Fine	6.13	15.54	NA	<4	5	120	11	2	14	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP132	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	9	62	40	3	48	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.09			
TP133	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	81	19	2	22	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.1			
TP134	0-0.4	Silty clay	Fine	6.13	15.54	NA	<4	4	210	12	3	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP136	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	4	76	19	2	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.4			
TP137	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	2	76	6	1	9	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
TP138	0-0.1	Fine silty clay	Fine	6.13	15.54	NA	<4	5	69	17	2	12	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.09			
SP1-1	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	140	14	4	16	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.4			
SP1-2	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	7	180	20	4	46	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.4			
SP1-3	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	130	12	4	37	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.4			
SP1-4	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	8	140	15	4	40	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.06			
SP1-5	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.05			
SP1-6	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.05			
SP1-7	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	7	180	20	4	46	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	0.05			
SP1-8	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	11	81	10	4	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-9	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-10	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	11	81	10	4	28	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-11	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-12	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-13	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-14	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-15	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-16	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-17	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-18	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-19	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-20	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-21	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-22	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-23	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-24	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-25	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-26	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-27	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-28	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-29	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-30	0.5	Fine silty sand	Coarse	NA	NA	NA	<4	5	150	15	4	18	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	<1	<0.05			
SP1-																												

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B[a]P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled	PCBs	C ₆ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₂₈	C ₂₉ -C ₃₆	Total C ₁₀ -C ₃₆	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	Sample Depth	Sample Description																									
TP119	0-0.1	Fill: silty clay	<4	<0.4	23	72	27	0.1	3	31	0.64	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP119 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	4	63	23	0.1	2	28	0.4	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP119 - [TRIPLICATE]	0-0.1	Fill: silty clay	<4	<0.4	5	58	19	<0.1	2	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP120	0-0.1	Fill: silty clay	<4	<0.4	5	61	22	<0.1	2	18	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP121	0-0.1	Fill: silty clay	<4	<0.4	4	59	23	<0.1	2	18	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP124	0-0.1	Fill: silty clay	<4	<0.4	4	72	25	<0.1	2	29	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP125	0-0.1	Fill: silty clay	<4	<0.4	4	59	24	<0.1	2	23	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP125	0.1-0.3	Silty clay	<4	<0.4	4	78	13	<0.1	2	13	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP126	0-0.1	Fill: silty clay	<4	<0.4	4	70	20	<0.1	2	22	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP127	0-0.1	Fill: silty clay	<4	<0.4	6	70	22	<0.1	3	24	0.59	0.08	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP128	0-0.1	Fill: silty clay	<4	<0.4	5	45	17	<0.1	3	20	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP129	0-0.1	Fill: silty clay	<4	<0.4	4	47	19	<0.1	2	15	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP129 - [LAB_DUP]	0-0.1	Fill: silty clay	<4	<0.4	5	61	20	<0.1	2	17	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP130	0-0.1	Fill: silty clay	<4	<0.4	4	84	19	<0.1	2	24	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP130	0.2-0.4	Silty clay	<4	<0.4	5	120	11	<0.1	2	14	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP131	0-0.1	Fill: silty clay	<4	<0.4	9	62	49	<0.1	3	48	0.55	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP132	0-0.1	Fill: silty clay	<4	<0.4	4	68	29	<0.1	2	32	0.3	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP133	0-0.1	Fill: silty clay	<4	<0.4	4	81	19	<0.1	2	22	1.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
TP133	0.2-0.4	Silty clay	<4	<0.4	6	210	12	<0.1	3	18	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP134	0-0.1	Fill: silty clay	<4	<0.4	4	98	19	<0.1	2	27	3.5	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP134	0.1-0.3	Fill: silty clay	<4	<0.4	2	76	6	<0.1	1	9	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
TP135	0-0.1	Fill: silty clay	<4	<0.4	5	69	17	<0.1	2	12	0.4	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP1-1	0.5	Fill: silty sand	<4	<0.4	5	130	14	<0.1	4	36	1.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP1-2	0.5	Fill: silty sand	<4	<0.4	7	140	20	<0.1	4	46	3.8	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP1-3	0.5	Fill: silty sand	<4	<0.4	5	120	12	<0.1	4	37	3.6	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP1-3 - [LAB_DUP]	0.5	Fill: silty sand	<4	<0.4	8	110	13	<0.1	5	42	0.2	0.06	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SP2-1	0.5	Fill: silty sandy clay	<4	<0.4	8	140	15	<0.1	4	40	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP2-2	0.5	Fill: silty sandy clay	<4	<0.4	5	130	15	<0.1	4	48	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP2-3	0.5	Fill: silty sandy clay	<4	<0.4	7	140	15	<0.1	4	38	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP3-1	0.5	Fill: silty clay	<4	<0.4	13	56	19	<0.1	6	50	0.4	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP3-2	0.5	Fill: silty clay	4	<0.4	15	44	26	<0.1	4	47	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP3-3	0.5	Fill: silty clay	<4	<0.4	11	81	10	<0.1	4	28	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP4-1	0.5	Fill: silty gravelly clay	<4	<0.4	5	150	10	<0.1	5	34	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	Not Detected
SP4-2	0.5	Fill: silty gravelly clay	<4	<0.4	23	46	37	<0.1	4	100	<0.05	<0.05	<0.1	<0.1													

TABLE S8

SOIL LABORATORY TCLP RESULTS

All data in mg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.03	0.0005	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	5	0.2	2	0.04
TCLP2 - Restricted Solid Waste			20	4	20	20	0.8	8	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	>20	>0.8	>8	>0.16
Sample Reference	Sample Depth	Sample Description							
SP5-1	0.5	Fill: silty sandy gravel	NA	NA	NA	0.08	NA	NA	NA
SP6-3	0.5	Fill: silty clay	NA	NA	NA	NA	NA	NA	<0.001
Total Number of samples			0	0	0	1	0	0	1
Maximum Value			NA	NA	NA	0.08	NA	NA	<PQL
General Solid Waste			VALUE						
Restricted Solid Waste			VALUE						
Hazardous Waste			VALUE						
Concentration above PQL			Bold						

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

Detailed (Stage 2) Site Investigation
December 2021

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	TP126 0-0.1	TP126 - [LAB_DUP] 0-0.1	TP126 0.7-0.8	SDUPPFAS10 -
PFAS Compound							
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	0.1	0.1	<0.1	0.2
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.3	<0.2	0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	NSL	0.1	0.1	<0.1	0.2
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.1	0.1	<0.1	0.2
Total Positive PFAS	0.1	NSL	NSL	0.4	0.4	<0.1	0.4
Positive PFAS result Bold							
PFAS result above the SAC Bold							

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Public Open Space	TP126 0-0.1 Fill: silty clay	TP126 - [LAB_DUP] 0-0.1 Fill: silty clay	TP126 0.7-0.8 Siltstone	SDUPPFAS10 - Soil DUP
PFAS Compound						
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	0.1	0.1	<0.1	0.2
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	0.3	0.3	<0.2	0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1,000	0.1	0.1	<0.1	0.2
Total Positive PFOS & PFOA	0.1	NSL	0.1	0.1	<0.1	0.2
Total Positive PFAS	0.1	NSL	0.4	0.4	<0.1	0.4
Positive PFAS result Bold PFAS result above the SAC Bold						

TABLE P3
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	SCC1	SCC2	TP126 0-0.1	TP126 - [LAB_DUP] 0-0.1	TP126 0.7-0.8	SDUPPFAS10 -
PFAS Compound							
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	0.1	0.1	<0.1	0.2
Perfluorodecane sulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	0.3	0.3	<0.2	0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	0.1	0.1	<0.1	0.2
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.1	0.1	<0.1	0.2
Total Positive PFAS	0.1	NSL	NSL	0.4	0.4	<0.1	0.4
Result above SCC1 Criteria Bold Result above SCC2 Criteria Bold							

TABLE P4
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL EnviroLab Services	TCLP1	TCLP2	TP126 0-0.1	TP126 - [LAB DUP] 0-0.1	TP126 0.7-0.8
PFAS Compound						
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5
MePer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Result above TCLP1 Criteria Result above TCLP2 Criteria						



**Soil Batch 6 -
Contamination Data Summary Tables**

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration	PCBs:	Polychlorinated Biphenyls
ACM:	Asbestos Containing Material	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
ADWG:	Australian Drinking Water Guidelines	pH_{KCL}:	pH of filtered 1:20, 1M KCL extract, shaken overnight
AF:	Asbestos Fines	pH_{ox}:	pH of filtered 1:20 1M KCL after peroxide digestion
ANZG:	Australian and New Zealand Guidelines	PQL:	Practical Quantitation Limit
B(a)P:	Benzo(a)pyrene	RS:	Rinsate Sample
CEC:	Cation Exchange Capacity	RSL:	Regional Screening Levels
CRC:	Cooperative Research Centre	RSW:	Restricted Solid Waste
CT:	Contaminant Threshold	SAC:	Site Assessment Criteria
EILs:	Ecological Investigation Levels	SCC:	Specific Contaminant Concentration
ESLs:	Ecological Screening Levels	S_{Cr}:	Chromium reducible sulfur
FA:	Fibrous Asbestos	S_{Pos}:	Peroxide oxidisable Sulfur
GIL:	Groundwater Investigation Levels	SSA:	Site Specific Assessment
GSW:	General Solid Waste	SSHSLS:	Site Specific Health Screening Levels
HILs:	Health Investigation Levels	TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
HSLs:	Health Screening Levels	TB:	Trip Blank
HSL-SSA:	Health Screening Level-Site Specific Assessment	TCA:	1,1,1 Trichloroethane (methyl chloroform)
kg/L	kilograms per litre	TCE:	Trichloroethylene (Trichloroethene)
NA:	Not Analysed	TCLP:	Toxicity Characteristics Leaching Procedure
NC:	Not Calculated	TPA:	Total Potential Acidity, 1M KCL peroxide digest
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	TSA:	Total Sulfide Acidity (TPA-TAA)
NSL:	No Set Limit	UCL:	Upper Level Confidence Limit on Mean Value
OCP:	Organochlorine Pesticides	USEPA:	United States Environmental Protection Agency
OPP:	Organophosphorus Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
PAHs:	Polycyclic Aromatic Hydrocarbons	WHO:	World Health Organisation
%w/w:	weight per weight		
ppm:	Parts per million		

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also referred to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE 1 Asbestos Identification in material samples			
			Asbestos ID in materials
Sample Reference	Sample Depth	Sample Description	
FCF1-SP6.101	0.5	Material	Chrysotile asbestos detected
FCF2-SP6.101	0.5	Material	Chrysotile asbestos detected
Total Number of Samples			2
Explanation:			
Asbestos detected in material		VALUE	

Detailed (Stage 2) Site Investigation
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ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Waste Classification and TCLP Table:

- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

TABLE P1
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Direct exposure All land use	NEMP 2020 Indirect exposure All land use	SP6-101 0.5 Fill: silty clay	SP6-102 0.5 Fill: silty clay	SP6-103 0.5 Fill: silty clay
PFAS Compound						
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	1000	10	0.4	0.2	0.2
Perfluorodecane sulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	NSL	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	NSL	0.4	0.2	0.2
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.4	0.2	0.2
Total Positive PFAS	0.1	NSL	NSL	0.4	0.2	0.2
Positive PFAS result PFAS result above the SAC Bold Bold						

TABLE P2
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Public Open Space	SP6-101 0.5	SP6-102 0.5	SP6-103 0.5
PFAS Compound					
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	0.4	0.2	0.2
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	10,000	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1,000	0.4	0.2	0.2
Total Positive PFOS & PFOA	0.1	NSL	0.4	0.2	0.2
Total Positive PFAS	0.1	NSL	0.4	0.2	0.2

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

TABLE P3
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	SCC1	SCC2	SP6-101 0.5	SP6-102 0.5	SP6-103 0.5
PFAS Compound						
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	0.4	0.2	0.2
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1
N-Ethyl perfluorooctanesulfonamide	1	NSL	NSL	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	0.4	0.2	0.2
Total Positive PFOS & PFOA	0.1	NSL	NSL	0.4	0.2	0.2
Total Positive PFAS	0.1	NSL	NSL	0.4	0.2	0.2
Result above SCC1 Criteria Result above SCC2 Criteria						

TABLE PQ1
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	SP6-101 0.5	SP6-102 0.5	SP6-103 0.5
PFAS Compound						
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5
MePer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01
Result above TCLP1 Criteria Bold Result above TCLP2 Criteria Bold						



Groundwater - Contamination Data Summary Tables

Detailed (Stage 2) Site Investigation
December 2021

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ADWG:	Australian Drinking Water Guidelines	PCBs:	Polychlorinated Biphenyls
ANZG	Australian and New Zealand Guidelines	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
B(a)P:	Benzo(a)pyrene	PQL:	Practical Quantitation Limit
CRC:	Cooperative Research Centre	RS:	Rinsate Sample
ESLs:	Ecological Screening Levels	RSL:	Regional Screening Levels
GIL:	Groundwater Investigation Levels	SAC:	Site Assessment Criteria
HILs:	Health Investigation Levels	SSA:	Site Specific Assessment
HSLs:	Health Screening Levels	SSHSLs:	Site Specific Health Screening Levels
HSL-SSA:	Health Screening Level-Site Specific Assessment	TB:	Trip Blank
NA:	Not Analysed	TCA:	1,1,1 Trichloroethane (methyl chloroform)
NC:	Not Calculated	TCE:	Trichloroethylene (Trichloroethene)
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	UCL:	Upper Level Confidence Limit on Mean Value
NSL:	No Set Limit	USEPA	United States Environmental Protection Agency
OCP:	Organochlorine Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
OPP:	Organophosphorus Pesticides	WHO:	World Health Organisation
PAHs:	Polycyclic Aromatic Hydrocarbons		
ppm:	Parts per million		

Detailed (Stage 2) Site Investigation
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TABLE G1 SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC All results in µg/L unless stated otherwise.															
	PQL EnviroLab Services	ANZG 2018 Fresh Waters	SAMPLES												
			MW1	MW1 - [LAB_DUP]	MW4	MW7	MW7 - [LAB_DUP]	MW12	MW12 - [LAB_DUP]	MW16	MW18	MW28	WDUP1	WDUP2	WDUP2 - [LAB_DUP]
Inorganic Compounds and Parameters															
pH		6.5 - 8.5	6.4	NA	7.2	7.5	NA	7.2	NA	7.5	7.3	7.2	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	520	NA	3000	1800	NA	3300	NA	2700	4000	4600	NA	NA	NA
Turbidity (NTU)		NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals and Metalloids															
Arsenic (As III)	1	24	<1	<1	<1	<1	NA	<1	NA	<1	<1	1	<1	<1	NA
Cadmium	0.1	0.2	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Chromium (SAC for Cr III adopted)	1	3.3	<1	<1	2	<1	NA	<1	NA	<1	<1	<1	2	<1	NA
Copper	1	1.4	3	3	2	<1	NA	2	NA	<1	5	<1	2	4	NA
Lead	1	3.4	<1	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1	3	NA
Total Mercury (inorganic)	0.05	0.06	<0.05	<0.05	<0.05	<0.05	NA	<0.05	NA	<0.05	<0.05	<0.05	<0.05	<0.05	NA
Nickel	1	11	4	4	8	2	NA	4	NA	<1	<1	1	8	5	NA
Zinc	1	8	11	12	6	4	NA	3	NA	2	12	6	5	11	NA
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)															
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	2	NSL	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs															
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	100	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	700	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	90	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	1	370	2	NA	6	28	27	<1	<1	9	<1	7	6	3	2
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	1900	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	270	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	240	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	900	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	1	330	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	6500	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	1100	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	70	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	55	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Styrene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2,2-tetrachloroethane	1	400	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	30	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	260	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	60	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	160	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	85	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	3	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)															
Naphthalene	0.2	16	<0.2	<0.2	<0.2	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2	<0.2	<0.1	NA
Acenaphthylene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Acenaphthene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Fluorene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Phenanthrene	0.1	0.6	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Anthracene	0.1	0.01	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Fluoranthene	0.1	1	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Pyrene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Benzo(a)anthracene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Chrysene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Benzo(b,j,k)fluoranthene	0.2	NSL	<0.2	<0.2	<0.2	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2	<0.2	<0.2	NA
Benzo(a)pyrene	0.1	0.1	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Benzo(g,h,i)perylene	0.1	NSL	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA



TABLE G2 SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILS All results in µg/L unless stated otherwise.															
	PQL Envirolab Services	Recreational (10 x NHMRC ADWG)	SAMPLES												
			MW1	MW1 - [LAB_DUP]	MW4	MW7	MW7 - [LAB_DUP]	MW12	MW12 - [LAB_DUP]	MW16	MW18	MW28	WDUP1	WDUP2	WDUP2 - [LAB_DUP]
Inorganic Compounds and Parameters															
pH		6.5 - 8.5	6.4	NA	7.2	7.5	NA	7.2	NA	7.5	7.3	7.2	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	520	NA	3000	1800	NA	3300	NA	2700	4000	4600	NA	NA	NA
Turbidity (NTU)		NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals and Metalloids															
Arsenic (As III)	1	100	<1	<1	<1	<1	NA	<1	NA	<1	<1	1	<1	<1	NA
Cadmium	0.1	20	<0.1	<0.1	<0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	NA
Chromium (total)	1	500	<1	<1	2	<1	NA	<1	NA	<1	<1	<1	2	<1	NA
Copper	1	20000	3	3	2	<1	NA	2	NA	<1	5	<1	2	4	NA
Lead	1	100	<1	<1	<1	<1	NA	<1	NA	<1	<1	<1	<1	3	NA
Total Mercury (inorganic)	0.05	10	<0.05	<0.05	<0.05	<0.05	NA	<0.05	NA	<0.05	<0.05	<0.05	<0.05	<0.05	NA
Nickel	1	200	4	4	8	2	NA	4	NA	<1	<1	1	8	5	NA
Zinc	1	30000	11	12	6	4	NA	3	NA	2	12	6	5	11	NA
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)															
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	2	6000	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs															
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	3	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	300	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	2500	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	1		2	NA	6	28	27	<1	<1	9	<1	7	6	3	2
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	30	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	30	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	500	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	3000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Styrene	1	300	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	200	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL													

TABLE G3 GROUNDWATER LABORATORY RESULTS COMPARED TO HSLs All data in µg/L unless stated otherwise											
				C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	
PQL - Envirolab Services				10	50	1	1	1	2	1	PID
NEPM 2013 - Land Use Category				HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL							
Sample Reference	Water Depth	Depth Category	Soil Category								
MW1	0.67	0m to <2m	Sand	<10	120	<1	<1	<1	<2	<1	NA
MW4	4.07	4m to <8m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
MW7	5.19	4m to <8m	Sand	29	110	<1	<1	<1	<2	<1	NA
MW7 - [LAB_DUP]	5.19	4m to <8m	Sand	27	NA	<1	<1	<1	<2	<1	NA
MW12	5.77	4m to <8m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
MW12 - [LAB_DUP]	5.77	4m to <8m	Sand	<10	NA	<1	<1	<1	<2	<1	NA
MW16	2.64	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
MW18	4.6	4m to <8m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
MW28	7.02	4m to <8m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
WDUP1	4.07	4m to <8m	Sand	<10	<50	<1	<1	<1	<2	<1	NA
WDUP2	0.67	0m to <2m	Sand	<10	160	<1	<1	<1	<2	<1	NA
WDUP2 - [LAB_DUP]	0.67	0m to <2m	Sand	<10	NA	<1	<1	<1	<2	<1	NA
Total Number of Samples				12	9	12	12	12	12	12	0
Maximum Value				29	160	<PQL	<PQL	<PQL	<PQL	<PQL	0
Concentration above the SAC			VALUE								
Site specific assesment (SSA) required			VALUE								
Concentration above the PQL			Bold								
The guideline corresponding to the elevated value is highlighted in grey in the Groundwater Assessment Criteria Table below											

HSL GROUNDWATER ASSESSMENT CRITERIA

Sample Reference	Water Depth	Depth Category	Soil Category	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
MW1	0.67	0m to <2m	Sand	1000	SSA	800	NL	NL	NL	NL
MW4	4.07	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
MW7	5.19	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
MW7 - [LAB_DUP]	5.19	4m to <8m	Sand	1000	NA	800	NL	NL	NL	NL
MW12	5.77	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
MW12 - [LAB_DUP]	5.77	4m to <8m	Sand	1000	NA	800	NL	NL	NL	NL
MW16	2.64	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
MW18	4.6	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
MW28	7.02	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
WDUP1	4.07	4m to <8m	Sand	1000	1000	800	NL	NL	NL	NL
WDUP2	0.67	0m to <2m	Sand	1000	SSA	800	NL	NL	NL	NL
WDUP2 - [LAB_DUP]	0.67	0m to <2m	Sand	1000	NA	800	NL	NL	NL	NL

TABLE G4 GROUNDWATER LABORATORY RESULTS COMPARED TO SITE SPECIFIC HSLs - RISK ASSESSMENT All results in µg/L unless stated otherwise.																
	PQL EnviroLab Services	NHMRC ADWG 2011	WHO 2008	USEPA RSL Tapwater 2017	SAMPLES											
					MW1	MW4	MW7	MW7 - [LAB_DUP]	MW12	MW12 - [LAB_DUP]	MW16	MW18	MW28	WDUP1	WDUP2	WDUP2 - [LAB_DUP]
Total Recoverable Hydrocarbons (TRH)																
C ₆ -C ₉ Aliphatics (assessed using F1)	10	-	15000	-	<10	<10	29	27	<10	<10	<10	<10	<10	<10	<10	<10
>C ₉ -C ₁₄ Aliphatics (assessed using F2)	50	-	100	-	120	<50	110	NA	<50	NA	<50	<50	<50	<50	160	NA
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)																
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	2	600	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Polycyclic Aromatic Hydrocarbons (PAHs)																
Naphthalene	1	-	-	6.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Volatile Organic Compounds (VOCs), including chlorinated VOCs																
Dichlorodifluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane	10	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	0.3	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	10	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	10	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	30	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	250	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	1	-	-	-	2	6	28	27	<1	<1	9	<1	7	6	3	2
2,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	3	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	3	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	50	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	300	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Styrene	1	30	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-xylene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	20	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	40	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	1500	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	30	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	7	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Concentration above the SAC Concentration above the PQL GIL >PQL																
	VALUE Bold Red															

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

CT:	Contaminant Threshold
FTS:	Fluorotelomer sulfonic acid
NA:	Not Analysed
NC:	Not Calculated
NEMP	National Environmental Management Plan
NSL:	No Set Limit
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
TB:	Trip Blank
TCLP:	Toxicity Characteristics Leaching Procedure
TS:	Trip Spike
UCL:	Upper Level Confidence Limit on Mean Value

Table Specific Explanations:

Groundwater Ecology Tables:

- 95% refers to a concentration that has been derived to protect 95% of aquatic species

TABLE GP1
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - ECOLOGY
All results in µg/L unless stated otherwise.

	PQL EnviroLab Services	NEMP 2018 95% Freshwater	SAMPLES										
			MW1	MW1 - [LAB_DUP]	MW4	MW7	MW12	MW16	MW18	MW28	MW28 - [LAB_DUP]	WDUP1	WDUP2
PFAS Compound													
Perfluorobutanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.1	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.2	NSL	<0.02	<0.02	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.1	220	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.5	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.5	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.5	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.5	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.1	NSL	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
8:2 FTS	0.1	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.1	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	1	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamidethanol	1	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamidethanol	5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePer uorooctanesulf-amidacetic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amidacetic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.1	NSL	0.01	0.01	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Positive PFAS result Bold PFAS result above the SAC Bold													

TABLE GP2
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - HUMAN HEALTH
All results in µg/L unless stated otherwise.

	PQL EnviroLab Services	NEMP 2020 Recreational	SAMPLES										
			MW1	MW1 - [LAB_DUP]	MW4	MW7	MW12	MW16	MW18	MW28	MW28 - [LAB_DUP]	WDUP1	WDUP2
PFAS Compound													
Perfluorobutanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.2	NSL	<0.02	<0.02	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.1	5.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.5	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.5	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.5	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.5	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.1	NSL	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
8:2 FTS	0.1	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.1	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	1	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPer uorooctanesulf-amid oacetic acid	0.2	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.1	0.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.1	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.1	NSL	0.01	0.01	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Positive PFAS result Bold PFAS result above the SAC Bold													



Detailed (Stage 2) Site Investigation December 2021

QA/QC -
Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ADWG:	Australian Drinking Water Guidelines	PCBs:	Polychlorinated Biphenyls
ANZG	Australian and New Zealand Guidelines	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
B(a)P:	Benzo(a)pyrene	PQL:	Practical Quantitation Limit
CRC:	Cooperative Research Centre	RS:	Rinsate Sample
ESLs:	Ecological Screening Levels	RSL:	Regional Screening Levels
GIL:	Groundwater Investigation Levels	SAC:	Site Assessment Criteria
HILs:	Health Investigation Levels	SSA:	Site Specific Assessment
HSLs:	Health Screening Levels	SSHSLs:	Site Specific Health Screening Levels
HSL-SSA:	Health Screening Level-Site Specific Assessment	TB:	Trip Blank
NA:	Not Analysed	TCA:	1,1,1 Trichloroethane (methyl chloroform)
NC:	Not Calculated	TCE:	Trichloroethylene (Trichloroethene)
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	UCL:	Upper Level Confidence Limit on Mean Value
NSL:	No Set Limit	USEPA	United States Environmental Protection Agency
OCP:	Organochlorine Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
OPP:	Organophosphorus Pesticides	WHO:	World Health Organisation
PAHs:	Polycyclic Aromatic Hydrocarbons		
ppm:	Parts per million		

Detailed (Stage 2) Site Investigation
December 2021

[illegible]

Result outside of QA/QC acceptance criteria	
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TABLE S-Q1 Batch 2
SOIL QA/QC SUMMARY[illegible]

[illegible]

Result outside of QA/QC acceptance criteria

[illegible][illegible]

[illegible][illegible]

TABLE SP_Q1_PFAS Batch 1 SUMMARY OF PFAS FIELD QA/QC IN SOIL Units are µg/Kg unless stated otherwise.																																					
			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfon amide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePer urooctanesulfamid oacetic acid	EtPer urooctanesulfamid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS				
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1				
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1				
Field Blank	PFAS TB-S1 8/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1				
Field Blank	PFAS TB-S2 9/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1				
Field Blank	PFAS TB-S3 10/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1				
Result outside of QA/QC acceptance criteria			Value																																		

TABLE SP_Q1_PFAS Batch 2
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfonamide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePer urooctanesulfamid oacetic acid	EtPer urooctanesulfamid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1
Intra laboratory duplicate	TP215	0-0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.4	0.4	0.4
	SDUPPFAS1	-	<0.1	<0.1	<0.1	<0.1	0.4	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.4	0.4	0.4
	MEAN		nc	nc	nc	nc	0.4	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.4	0.4	0.4
	RPD %		nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	0%
Field Blank	PFAS TB-S4 13/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	PFAS TB-S5 14/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	PFAS TB-S6 15/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	PFAS TB-S7 16/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	PFAS-TB-S8 17/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Result outside of QA/QC acceptance criteria			Value																														

TABLE SP_Q1_PFAS Batch 3
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecane sulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:6 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfonamide	N-Me perfluorooctanesulfonamid ethanol	N-Et perfluorooctanesulfonamid ethanol	MePer urooctanesulf-amid oacetic acid	EtPer urooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS	
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
Intra laboratory duplicate	TP263	0-0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.2	
	SDUPPFAS2	-	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.4	
	MEAN		nc	nc	nc	nc	0.2	nc	0.15	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	0.2	0.3
	RPD %		nc	nc	nc	nc	0%	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	67%
Inter laboratory duplicate	TP266	0-0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.2	
	SDUPPFAS3	-	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.1	0.1	0.4	
	MEAN		nc	nc	nc	nc	0.15	nc	0.2	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.15	0.15	0.3
	RPD %		nc	nc	nc	nc	67%	nc	100%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	67%	67%
Intra laboratory duplicate	TP275	0-0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.1	0.1	0.4	
	SDUPPFAS4	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	0.2	
	MEAN		nc	nc	nc	nc	0.075	nc	0.25	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.075	0.075	0.3
	RPD %		nc	nc	nc	nc	67%	nc	40%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	67%	67%
Inter laboratory duplicate	TP181	0-0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.4	0.4	0.7	
	SDUPPFAS5	-	<0.1	<0.1	<0.1	<0.1	0.4	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.4	0.4	0.7	
	MEAN		nc	nc	nc	nc	0.4	nc	0.3	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.4	0.4	0.7
	RPD %		nc	nc	nc	nc	0%	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	0%
Intra laboratory duplicate	TP150	0-0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.5	
	SDUPPFAS6	-	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	0.3	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.5	
	MEAN		nc	nc	nc	nc	0.2	nc	0.3	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	0.2	0.5
	RPD %		nc	nc	nc	nc	0%	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	0%
Field Blank	PFAS TB-S9 20/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
Field Blank	PFAS TB-S10 21/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
Field Blank	PFAS TB-S11 22/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
Field Rinsate	FR-B9 20/09/2021	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
Field Rinsate	FR-B10 21/09/2021	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
Field Rinsate	FR-B11 22/09/2021	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
Text																																		
Result outside of QA/QC acceptance criteria			Value																															

TABLE SP_Q1_PFAS Batch 4
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecane sulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetra-decanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfonamide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePer urooctanesulf-amid oacetic acid	EtPer urooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS	
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
Intra laboratory duplicate	TP101	0-0.1	<0.1	<0.1	0.9	0.2	21	<0.2	0.3	<0.2	0.2	0.1	0.2	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	22	21	23	
	SDUPPFAS9	-	<0.1	<0.1	1.1	0.2	21	<0.2	0.3	<0.2	0.3	0.1	0.3	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	22	21	23	
	MEAN		nc	nc	1	0.2	21	nc	0.3	nc	0.25	0.1	0.25	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	22	21	23	
	RPD %		nc	nc	20%	0%	0%	nc	0%	nc	40%	0%	40%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	0%	
Intra laboratory duplicate	TP277	0-0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.4	0.4	0.4	
	SDUPPFAS7	-	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.2	
	MEAN		nc	nc	nc	nc	0.3	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.3	0.3	0.3
	RPD %		nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	67%	67%	
Inter laboratory duplicate	TP280	0-0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.2	
	SDUPPFAS8	-	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.2	
	MEAN		nc	nc	nc	nc	0.2	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	0.2	0.2	
	RPD %		nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	0%	
Field Blank	PFAS TB-S12 23/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
Field Blank	PFAS TB-S13 23/09/2021	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
Field Rinsate	FR-B12 23/09/2021	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
Field Rinsate	FR-B13 24/09/2021	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
Result outside of QA/QC acceptance criteria			Value																															

TABLE SP_Q1_PFAS Batch 5
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecenesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid		Perfluorohexanoic acid		Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluortetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfonamide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePer urooctanesulf-amid oacetic acid	EtPer urooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS	
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2		0.1		0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2		0.1		0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
Intra laboratory duplicate	TP126	0-0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	0.3	<0.2		<0.1		<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.1	0.1	0.4	
	SDUPPFAS10	-	<0.1	<0.1	<0.1	<0.1	0.2	<0.2	0.2	<0.2		<0.1		<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.2	0.2	0.4	
	MEAN		nc	nc	nc	nc	0.15	nc	0.25	nc		nc		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.15	0.15	0.4	
	RPD %		nc	nc	nc	nc	67%	nc	40%	nc		nc		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	67%	0%	
Field Blank	PFAS TB-S14	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2		<0.1		<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1	
	27/09/2021																																			
Result outside of QA/QC acceptance criteria			Value																																	

TABLE W-Q1
GROUNDWATER QA/QC SUMMARY

[illegible]

		TRH <C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	Asenic	Cadmium	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc				
		10	50	100	100	1	1	1	2	1	0.2	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	1	0.1	1	1	1	1	0.05	1	1			
		10	50	100	100	1.0	1.0	1.0	2.0	1.0	0.2	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	1	0.1	1	1	1	1	0.05	1	1			
Intra laboratory duplicate	MW4	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	2	2	1	<0.05	8	6				
	WDUP1	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	2	2	1	<0.05	8	5				
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	2	2	nc	nc	8	5.5			
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	nc	nc	0%	18%			
Inter laboratory duplicate	MW1	<10	120	170	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	1	3	1	<0.05	4	11				
	WDUP2	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	1	3	1	<0.05	5	11				
	MEAN	nc	140	245	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	3.5	1.75	nc	4.5	11			
	RPD %	nc	29%	61%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	29%	143%	nc	22%	0%		
Trip Spike	TS-W1 25/10/2021	-	-	-	-	80%	100%	120%	115%	115%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Trip Spike	TS-W2 26/10/2021	-	-	-	-	80%	99%	115%	114%	115%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Field Blank	TB-W1 25/10/2021	<10	NA	NA	NA	<1	<1	<1	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Field Blank	TB-W2 26/10/2021	<10	NA	NA	NA	<1	<1	<1	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Result outside of QA/QC acceptance criteria																																Value					

TABLE WP-Q1
SUMMARY OF PFAS FIELD QA/QC IN GROUNDWATER
Units are µg/L unless stated otherwise.

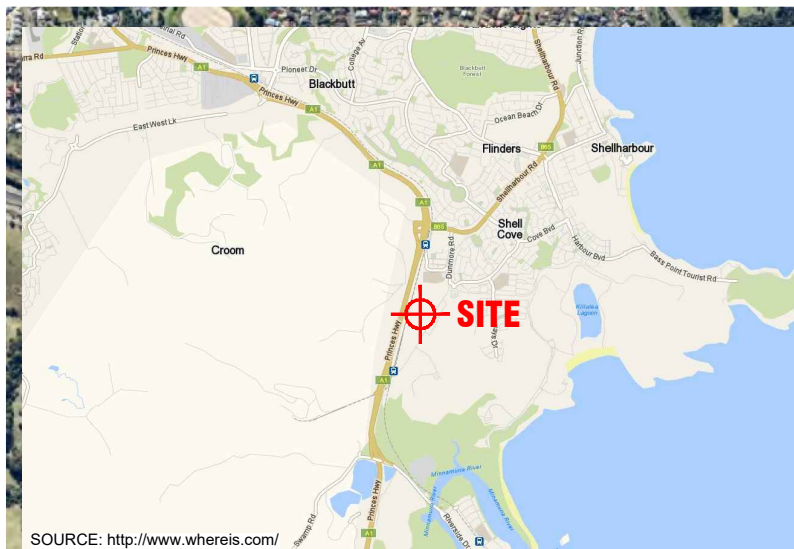
			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfonamide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePer urooctanesulf-amid oacetic acid	EtPer urooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS	
PQL Envirolab			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
PQL Envirolab VIC			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.1	0.1	0.1	0.1	1	1	1	1	5	0.2	0.2	0.1	0.1	0.1	
Intra laboratory duplicate	MW4		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
	WDUP1		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	<0.01	
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter laboratory duplicate	MW1		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	0.01	
	WDUP2		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	<0.01	<0.01	0.01	
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.01	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.01
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Result outside of QA/QC acceptance criteria			Value																															



Additional Groundwater Assessment Figures

Additional Groundwater Assessment
June 2022

Some figures containing unrelated plans have been removed from this appendix for the purposes of the REF - at the request of HI/Savills.



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

Title:

SITE LOCATION PLAN

Location:

86 DUNMORE ROAD, SHELLHARBOUR, NSW

Project No:

E34300PT

Figure No:

1

This plan should be read in conjunction with the Environmental report.

JKEnvironments



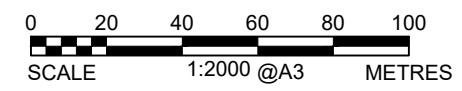
PLOT DATE: 21/10/2021 10:45:41 AM DWG FILE: S:\5 EIS\SC EIS JOBS\34000\34000\T DUNMORE\CAD\34000\PT\T2.DWG



LEGEND

- APPROXIMATE ZONE BOUNDARIES
- APPROXIMATE WIDER PROPERTY BOUNDARY
- ABORIGINAL AREAS (EMM REPORT)
- + BH/MW(Fill Depth) BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- TP(Fill Depth) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

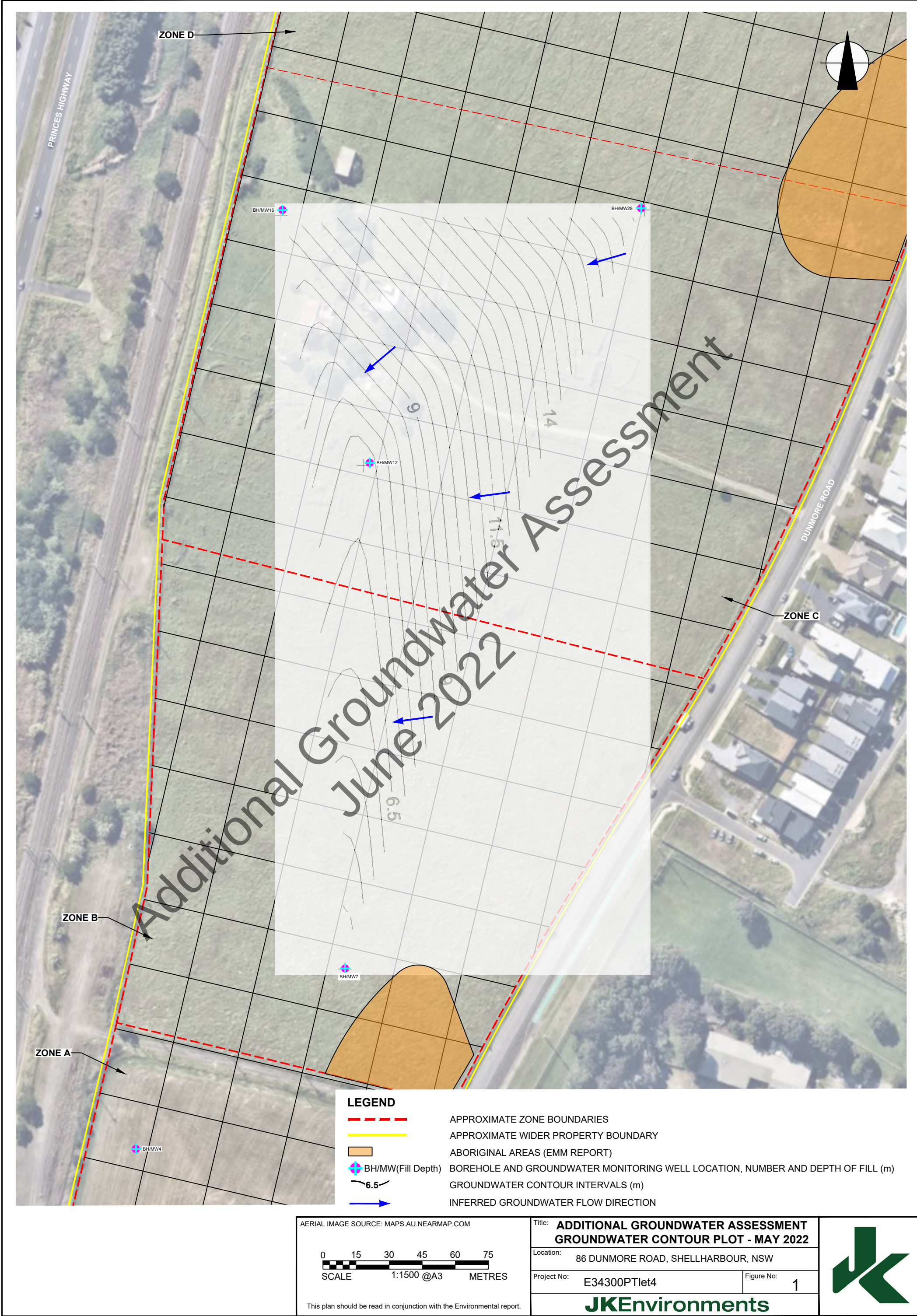


This plan should be read in conjunction with the Environmental report.

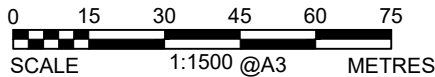
Title:		SAMPLE LOCATION PLAN ZONE A	
Location:		86 DUNMORE ROAD, SHELLHARBOUR, NSW	
Project No:		E34300PTcpt2	Figure No: 2a
JKEnvironments			



PLOT DATE: 19/06/2022 11:00:53 AM DWG FILE: S:\6 EIS\SC EIS\06S\3400\SITE\34300PT DUNMORE\CADE\34300PTLET4.DWG



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM



This plan should be read in conjunction with the Environmental report.

Title: **ADDITIONAL GROUNDWATER ASSESSMENT**
GROUNDWATER CONTOUR PLOT - MAY 2022

Location: 86 DUNMORE ROAD, SHELLHARBOUR, NSW

Project No: E34300PTlet4

Figure No: 1

JKEnvironments





Contamination Data Summary Tables

Additional Groundwater Assessment
June 2022

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ADWG:	Australian Drinking Water Guidelines	PCBs:	Polychlorinated Biphenyls
ANZG:	Australian and New Zealand Guidelines	PCE:	Perchloroethylene (Tetrachloroethylene or Tetrachloroethene)
B(a)P:	Benzo(a)pyrene	PQL:	Practical Quantitation Limit
CRC:	Cooperative Research Centre	RS:	Rinsate Sample
ESLs:	Ecological Screening Levels	RSL:	Regional Screening Levels
GIL:	Groundwater Investigation Levels	SAC:	Site Assessment Criteria
HILs:	Health Investigation Levels	SSA:	Site Specific Assessment
HSLs:	Health Screening Levels	SSHSLs:	Site Specific Health Screening Levels
HSL-SSA:	Health Screening Level-Site Specific Assessment	TB:	Trip Blank
NA:	Not Analysed	TCA:	1,1,1 Trichloroethane (methyl chloroform)
NC:	Not Calculated	TCE:	Trichloroethylene (Trichloroethene)
NEPM:	National Environmental Protection Measure	TS:	Trip Spike
NHMRC:	National Health and Medical Research Council	TRH:	Total Recoverable Hydrocarbons
NL:	Not Limiting	UCL:	Upper Level Confidence Limit on Mean Value
NSL:	No Set Limit	USEPA:	United States Environmental Protection Agency
OCP:	Organochlorine Pesticides	VOCC:	Volatile Organic Chlorinated Compounds
OPP:	Organophosphorus Pesticides	WHO:	World Health Organisation
PAHs:	Polycyclic Aromatic Hydrocarbons		
ppm:	Parts per million		

TABLE G1									
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC									
All results in µg/L unless stated otherwise.									
	PQL Envirolab Services	ANZG 2018 Fresh Waters	SAMPLES						
			MW7	MW7 LAB DUP	MW12	MW16	MW28	WDUP1	WDUP2
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	950	<1	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	<2	<2	<2	<2	<2	<2
o-xylene	1	350	<1	<1	<1	<1	<1	<1	<1
Total xylenes	2	NSL	<2	<2	<2	<2	<2	<2	<2
Concentration above the SAC	VALUE								
Concentration above the PQL	Bold								
GIL >PQL	Red								

Additional Groundwater Assessment
June 2022

TABLE G2									
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILs									
All results in µg/L unless stated otherwise.									
	PQL EnviroLab Services	Recreational (10 x NHMRC ADWG)	SAMPLES						
			MW7	MW7 LAB DUP	MW12	MW16	MW28	WDUP1	WDUP2
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	10	<1	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	<2	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	<1	<1	<1	<1	<1	<1
Total xylenes	2	6000	<2	<2	<2	<2	<2	<2	<2
Concentration above the SAC									
Concentration above the PQL									
GIL >PQL									
VALUE									
Bold									
Red									

Additional Groundwater Assessment
June 2022

TABLE G3
GROUNDWATER LABORATORY RESULTS COMPARED TO HSLs
All data in µg/L unless stated otherwise

				C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services				10	50	1	1	1	2	1	
NEPM 2013 - Land Use Category				HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL							
Sample Reference	Water Depth	Depth Category*	Soil Category								
MW7	4.44	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
MW7 - LAB DUP	4.44	2m to <4m	Sand	<10	NA	<1	<1	<1	<2	<1	0
MW12	5.12	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
MW16	2.29	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
MW28	6.37	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
WDUP1	4.44	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
WDUP2	6.37	2m to <4m	Sand	<10	<50	<1	<1	<1	<2	<1	0
Total Number of Samples				7	6	7	7	7	7	7	7
Maximum Value				<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	0

* Nominal depth category selected - does not reflect water depth

Concentration above the SAC

VALUE

Concentration above the PQL

Bold

The guideline corresponding to the elevated value is highlighted in grey in the Groundwater Assessment Criteria Table below

HSL GROUNDWATER ASSESSMENT CRITERIA

Sample Reference	Water Depth	Depth Category*	Soil Category	C ₆ -C ₁₀ (F1)	>C ₁₀ -C ₁₆ (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
MW7	4.44	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
MW7 - LAB DUP	4.44	2m to <4m	Sand	1000	NA	800	NL	NL	NL	NL
MW12	5.12	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
MW16	2.29	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
MW28	6.37	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
WDUP1	4.44	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL
WDUP2	6.37	2m to <4m	Sand	1000	1000	800	NL	NL	NL	NL

TABLE Q1 GROUNDWATER QA/QC SUMMARY										
		TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene
PQL Envirolab SYD		10	50	100	100	1	1	1	2	1
PQL Envirolab VIC		10	50	100	100	1.0	1.0	1.0	2.0	1.0
Intra laboratory duplicate	MW7	<10	<50	<100	<100	<1	<1	<1	<2	<1
	WDUP1	<10	<50	<100	<100	<1	<1	<1	<2	<1
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	MW28	<10	<50	<100	<100	<1	<1	<1	<2	<1
	WDUP2	<10	<50	<100	<100	<1	<1	<1	<2	<1
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field Blank	TB-W101	0	0	0	0	<1	<1	<1	<2	<1
	11/05/2022									
Trip Spike	TS-W101	-	-	-	-	117%	81%	120%	115%	115%
	11/05/2022									
Result outside of QA/QC acceptance criteria						Value				



Appendix D: Waste/Materials Tracking Template

Imported Materials Register									
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[illegible]

Exported (Waste) Materials Register									
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[illegible]



Appendix E: Guidelines and Reference Documents



Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

Australian and New Zealand Environment Conservation Council (ANZECC), (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality

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