Detailed Ecological Risk Assessment, RAAF Base Point Cook, Victoria

Department of Defence

Report

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We acknowledge the Traditional Custodians of Country throughout Australia and their connection to land, sea and community.

We pay our respect to Elders past, present and emerging and in the spirit of reconciliation we commit to working together for our shared future where every person is respected, valued and has strong sense of belonging.

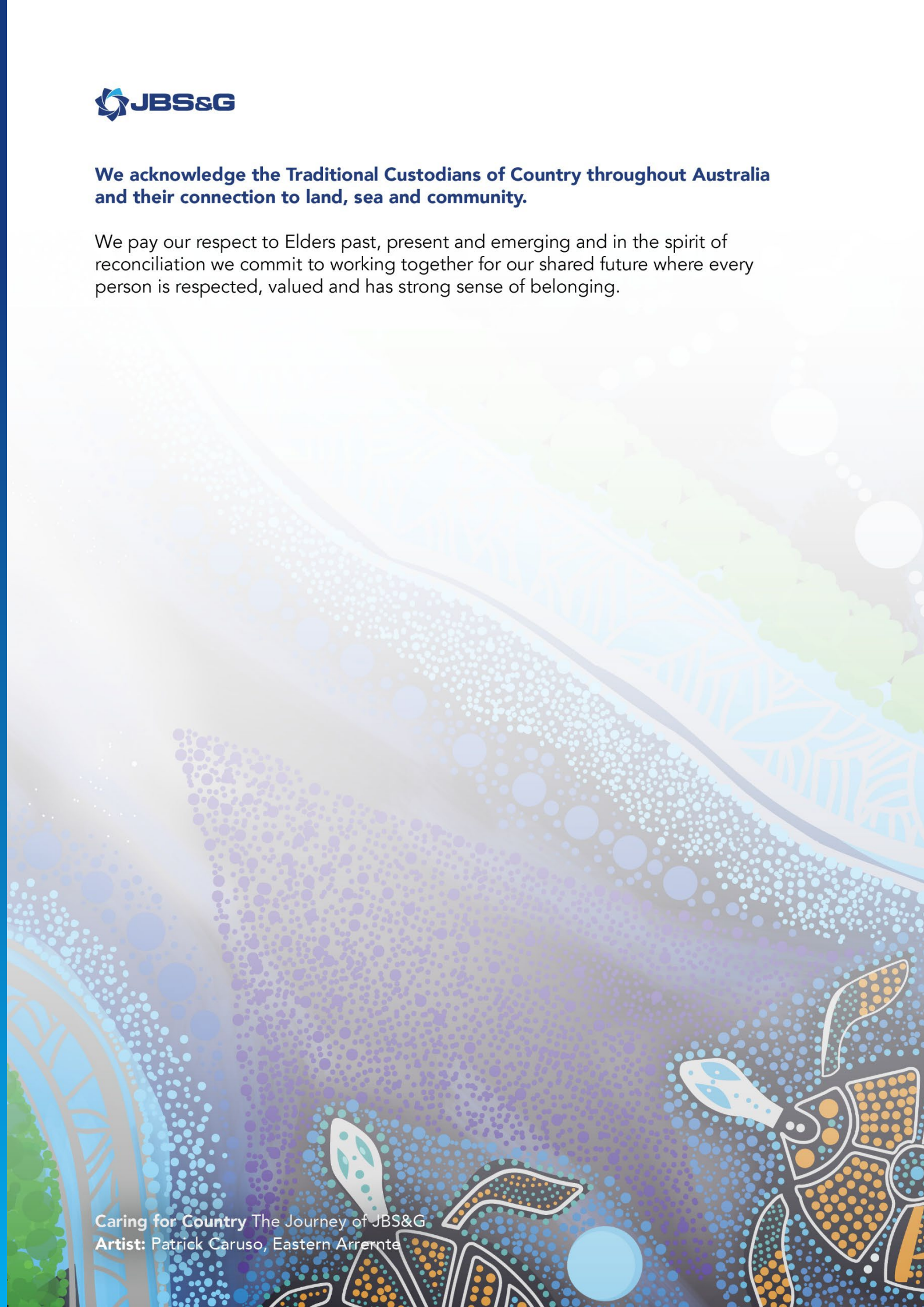


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Abbreviations

Term	Definition
µg	Microgram
µg/kg	Microgram per kilogram
µg/kg	Milligram per kilogram
µg/L	Microgram per litre
AAFCANS	Army and Airforce canteen service
AECOM	AECOM Consultants Pty Ltd
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ANZG	Australian and New Zealand Guidance
AOI	Area of Interest
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
ASS	Acid sulphate soils
AST	Above ground storage tank
AUF	Area use factor
BCF	Bioconcentration factor
bgl	Below ground level
BGV	Biota guideline value
Biosis	Biosis Research Pty Ltd
BMF	Biomagnification factor
BOM	Bureau of meteorology
BW	Body weight
CAMBA	China Australia migratory bird agreement
CCME	Canadian Council of Miniters of the Environment
cm	Centimetre
COPC	Contaminants of potential concern
CRAT	Contamination Risk Assessment Tool
CSM	Conceptual site model
CTV	Critical toxicity values
DCCEEW	Department of Climate Change, Energy, the Environment and Water
Defence	Department of Defence
DELWP	Department of Environment Land Water and Planning
DGV	Default Guideline Values
DMI	Dry matter intake
DNAPL	Dense non-aqueous phase liquid
DOEE	Department of the Environment and Energy
DSI	Detailed Site Investigation
DTED	Daily Threshold Effects Dose

Term	Definition
ECCC	Environment and Climate Change Canada
EPA	Environment Protection Authority Victoria
EPBC	Environmental Protection and Biodiversity Conservation Act 1999
EPC	Exposure point concentration
ERA	Ecological risk assessment
ERA	Environment reference standard
ERS	Victoria Government Gazette – Environment reference standard
ESSD	Estimated Species Sensitivity Distributions
FFG Act	Flora and Fauna Guarantee Act 1988
FFTG	Federal fish tissue guideline
FI:BW	Food intake to bodyweight ratio
FIR	Food ingestion rate
FMI	Fresh matter intake
FTA	Former fire training area
FTC	Fire training compound
FTSB	Fish tissue screening benchmarks
FTTG	Federal fish tissue guideline
g	Grams
ha	Hectares
HI	Hazard index
HQ	Hazard quotient
IR	Ingestion rate
JAMBA	Japan Australia Migratory Bird Agreement
JBS&G	JBS&G Australia Pty Ltd
Kg	Kilograms
Km	Kilometres
Km^2	square kilometres
L	Litres
LD50	Lethal dose, 50%
LOAEL	Lowest observed adverse effect level
LOEC	Lowest observed effect concentration
m	Metres
m^2	Square metres
mg	Milligram
mg/kg	Milligram per kilogram
mm	Millimetres
MPE	Maximum probable error
NEMP	National Environment Management Plan
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration

Term	Definition
OCP	Organochlorine pesticides
PASS	potential acid sulphate soil
PCB	Polychlorinated biphenyls
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutane sulfonate
PFHxS	perfluorohexane sulfonate
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PFOS+PFHxS	Sum of perfluorooctane sulfonate and perfluorohexane sulfonate
PID	Photoionization detector
PMAP	PFAS Management Area Plan
PMST	EPBC Act Protected Matters Search Tool
POP	Persistent organic pollutant
PPWCMA	Port Phillip Bay and Westernport Catchment Management Authority
PSI	Preliminary site investigation
RAAF	Royal Australian Air Force
ROC	Receptor of concern
SA	Source area
SAQP	Sampling and analysis quality plan
Senversa	Senversa Pty Ltd
SFARP	So far as reasonably practicable
spp.	Species protection
SPR	Source-Pathway-Receptor
SSD	Species sensitivity distribution
STP	Sewerage treatment plant
TA	Technical advisor
TDD	Total daily dosages
TDI	Tolerable Daily Intake
TEC	Threshold effects concentration
TF	Transfer factor
TOC	Total organic carbon
TRV	Toxicity reference value
UCL	Upper confidence limit
UF	Uncertainty factor
UNEP	United Nations environment programme
US EPA	United States Environment Protection Agency
VBA	Victorian biodiversity atlas
XRF	X-ray fluorescence

Executive summary

JBS&G Australia Pty Ltd (JBS&G) has been engaged by the Department of Defence (Defence) as Lead Consultant for the implementation of *PFAS Management Area Plan – RAAF Williams, Laverton and RAAF Base Point Cook* (Defence 2025a), herein referred to as the 'PMAP'. This work forms part of a national Defence program to understand per- and polyfluoroalkyl substances (PFAS) contamination resulting from the historical use of aqueous film forming foam (AFFF) on and adjacent to Defence properties. In accordance with the identified risk management action four documented in the PMAP, JBS&G has prepared a detailed ecological risk assessment (detailed ERA) focused on the terrestrial areas and the aquatic receiving environments for surface water and groundwater discharges in relation to Royal Australian Air Force (RAAF) Base Point Cook (the base). The overall objective of the project is to achieve remediation and management following a 'so far as reasonably practicable' (SFARP) approach which is consistent with Environment Protection Authority (EPA) Victoria duty to manage contaminated land.

The base is located approximately 20 kilometres (km) to the south-west of the Melbourne central business district (CBD), as shown on figures provided in **Appendix A**. Previous investigations and analytical data from the Defence Esdat database informed this detailed ERA (refer to **Appendix B**). Three key areas of interest (AOI) were identified and assessed as part of this detailed ERA, namely: a) on-base terrestrial areas, b) RAAF Lake and c) the foreshore and inshore areas of Port Phillip Bay adjacent to the base.

JBS&G undertook a data gap assessment and developed a sampling and analysis quality plan (SAQP) to address key data gaps and allow for preparation of this detailed ERA. The SAQP was documented in *PFAS Management Area Plan (PMAP) Delivery at RAAF Williams, Laverton and RAAF Base Point Cook Sampling and Analysis Quality Plan (SAQP) – Ecological Risk Assessment & Human Health Risk Assessment* (JBS&G 2024). An assessment is currently being prepared separately, *RAAF Base Point Cook – PMAP Risk Management Actions and Conceptual Site Model Update* (JBS&G, 2026b), which documents a PFAS conceptual site model (CSM)

The objective of this detailed ERA is to determine whether base-originated PFAS poses a low and acceptable or potentially elevated risk to ecological receptors within the AOI. PFAS exposures were assessed by identification of risk driving environmental media (e.g. surface water, sediment and biota[1]) and quantification of risks via calculation of hazard indices (HI[2]) for receptor groups and representative receptors of concern (ROC), focusing on perfluorooctane sulfonic acid (PFOS) and perfluorohexane sulfonate (PFHxS)[3] assessed as the arithmetic sum of both compounds (i.e. PFOS+PFHxS).

Each of the assessed AOI pose a different potential for exposure to PFAS based on the presence and contamination status of environmental media and use by receptor species for foraging and/or predation. A summary of potential risks to sensitive receptors is provided in **Table E 1**. The table focuses upon the receptors groups which were found to have potentially complete source-pathway-receptor (SPR) linkages in the CSM.

[1] Biota refers to biological matter such as plants, algae, benthic invertebrates, pelagic invertebrates, small fish (i.e. prey fish) and large fish (i.e. predatory fish).

[2] For the purposes of this detailed ERA, the following approach has been adopted with respect to the HI, with further information provided in **Section 9.2**:

HI ≤1: Risks are low and acceptable.
HI >1 to ≤10: Risks are potentially elevated.
HI >10: Risks are elevated.

[3] The risk assessment focused upon PFAS for which National government criteria have been provided for ecological risk assessment within the framework of the *PFAS National Environmental Management Plan (Version 3.1)*. Further information is provided in **Section 1.5.**

Table E.1 Summary of risk characterisation

Receptor	Hazard categories for ecological receptors		
	Terrestrial areas[2]	Port Phillip Bay	RAAF Lake
Aquatic receptors			
Plants/algae	-	<1	<1 (all rounds)[4]
Amphibians	-	<1	1-10 (2018, 2020) >10 (2024)[4]
Crustaceans	-	<1	<1 (2018, 2020) 1-10 (2024)[4]
Insects	-	<1	>10 (all rounds)[4]
Molluscs	-	<1	<1 (all rounds)[4]
Flatworms	-	<1	<1 (all rounds)[4]
Rotifers	-	<1	<1 (2018, 2020) 1-10 (2024)[4]
Fish	-	<1	-[3]
Higher order aquatic species	-	<1	-[3]
Terrestrial species			
Terrestrial plants and invertebrates	<1	-	-
Terrestrial mammals	1-10 (3.8)	-	-
Terrestrial birds	<1	-	-
Aquatic birds			
Resident primary herbivore (black swan)	-	<1	1-10 (1.2)[1]
Resident secondary-tertiary invertivore (Australasian shoveler)	-	<1	<1[1]
Resident tertiary-quaternary piscivore/invertivore (little egret)	-	1-10 (2.2)	<1[1]
Resident tertiary-quaternary piscivore/invertivore (Caspian tern)	-	1-10 (2.0)	<1[1]
Resident quaternary piscivore (osprey)	-	<1	<1[1]
Migratory secondary-tertiary invertivore (double-banded plover)	-	<1	1-10 (4.4)[1]
Migratory tertiary-quaternary piscivore/invertivore (little tern)	-	1-10 (2.2)	<1[1]

[1] Based on direct contact exposures to surface water and sediment only.
[2] Excluding SA04 to SA06 as assessed qualitatively.
[3] No evidence of fish has been identified in RAAF Lake.
[4] Risk estimates to aquatic species in RAAF Lake vary by sampling round.

The risk estimates detailed in the table above can be summarised as follows:

- Terrestrial receptors:
    - Terrestrial areas of the base are affected by elevated concentrations of PFOS+PFHxS in soil due to historical AFFF storage or use. Receptors exposed to PFOS+PFHxS within terrestrial areas of the base included lower order species (plants and invertebrates), non-conservation significant mammals (e.g. mice and rats) and a range of avian species. Risks posed to receptors in terrestrial areas of the base are **potentially elevated** for some mammalian species which consume invertebrates due to bioaccumulation of PFAS. Assessment of exposures to a limited selection of avian receptors indicated **low and acceptable** risks, noting uncertainties in the suitability of the approach to assessing sensitive avian receptors. Risks posed to lower order species (plants and invertebrates) by exposure to PFOS+PFHxS in soil were found to be **low and acceptable** in all areas of the base except for the unsealed fringes of operational infrastructure in known source areas (SA04 to SA06).
    - SA04 to SA06 (a fire training practice area, former fuel farm and operational aircraft hangars) occupy a small lateral extent and exhibit relatively high PFAS concentrations in soil compared to the rest of the base. This portion of the base is located immediately adjacent to operational infrastructure, and the representative samples relate to shallow soil on the proximity of hardstands or proximal to former chemical storage infrastructure. The presence of low order species is understood to be limited to fringing grasses, and it is not anticipated that the affected areas are ecologically important. Notwithstanding, it is considered that soil in SA04 to SA06 represents a potentially elevated risk to terrestrial ecological receptors including the grasses and any invertebrates present within the soil. Given the limited area of impact, it is not anticipated that SA04 to SA06 potentially pose a significant risk to higher order terrestrial species.
- RAAF Lake:
    - RAAF Lake is a shallow ephemeral salt pan, and the southern portion is located within the base. The northern portion of the lake extends into Point Cook Coastal Park, which comprises Parks Victoria land.
    - RAAF Lake comprises an ephemeral hypersaline water body which is frequently observed to be entirely or primarily dry. Multiple attempts to sample aquatic biota from the lake did not result in sufficient sample mass being obtained for laboratory analysis. However, the attempted sampling events coincided with drying cycles and may not represent conditions during wetting cycles anticipated to be associated greater abundance of biota. Benthic invertebrates were identified within the lake and are likely to represent a food source during wetting cycles which is anticipated to cause greater abundance. Potential receptors in RAAF Lake were limited to lower order aquatic species (plants/algae, crustaceans, insects, molluscs, amphibians and potentially other invertebrate species), as well as conservation significant avian species.
    - RAAF Lake was estimated to pose **potentially elevated** risks by exposure of amphibians, crustaceans, insects and rotifer (if present) species to PFOS+PFHxS present in surface water. **Low and acceptable** risks were identified for all other aquatic biota potentially present within RAAF Lake. Of note, no higher order aquatic species (i.e. fish) are anticipated to be present in RAAF Lake due to the frequent complete drying cycles.

- RAAF Lake was estimated to pose **potentially elevated** risks by exposure of herbivorous and omnivorous avian receptors with a relatively high incidental sediment intake. **Low and acceptable** risks to other avian receptors were found to be on the basis that the lake does not represent a preferential foraging/predation environment for most species. It is noted that the estimated risks have been based on estimated exposure to surface water and sediment only in absence of a reliable means to estimate biota concentrations and/or empirical measurements of biota tissue PFOS+PFHxS concentrations.

- Port Phillip Bay:
  - Port Phillip Bay is a horsehead-shaped enclosed bay on the central coast of southern Victoria. Port Phillip Bay is a surface water body which receives surface water discharge from a variety of commercial/industrial sources (e.g. treated wastewater, urban stormwater). City of Geelong and parts of Greater Melbourne are situated adjacent to Port Phillip Bay. As such, the bay receives inflows from various urban, commercial, industrial and residential areas.
  - Port Phillip Bay was estimated to pose **low and acceptable** risks to aquatic species in the inshore environment. Within the foreshore environment, a potentially complete exposure pathway was identified between sediment/porewater and benthic organisms. It is considered that there is a potentially elevated exposure between sediment/porewater and low order aquatic species with a benthic exposure in the Port Phillip Bay foreshore. The confidence in the assessment is low, but it is not considered likely that additional assessment would meaningfully alter the assessment outcomes with respect to the approach to remediation and/or management of the site.
  - Port Phillip Bay was estimated to pose **potentially elevated** risks by dietary exposure of piscivorous avian receptors to fish with elevated PFOS+PFHxS tissue concentrations. Risks to other avian receptors were found to be **low and acceptable** based on the lower tissue concentrations in aquatic plants and invertebrate species.

- It is anticipated that reducing PFAS discharges from the base by implementing source control and/or removal within the extent of the base would cause PFAS in RAAF Lake to reduce over the long-term, but the reduction may not be directly measurable due to confounding factors affecting the concentration of PFAS in the lake (e.g. potential for sediment to act as secondary source to surface water). Source control and/or removal could have a measurable effect on the concentrations PFAS in the foreshore and inshore areas of Port Phillip Bay immediately adjacent to the base.
- Remediation and/or management of the AOI directly would require a considerable extent of effort and potentially cause environmental disturbance for which the net environmental benefit is not currently clear. Whilst there is a potential for ongoing discharges from the base to the AOI, any remedial efforts may be undermined by subsequent recontamination.
- It is understood that the requirement for remediation and / or management controls will be considered in the context of JBS&G (2026b) and documented in a revision to the PMAP.

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) has been engaged by the Department of Defence (Defence) as Lead Consultant for the implementation of *PFAS Management Area Plan – RAAF Williams (Point Cook) Addendum* (Defence, 2025a), herein referred to as the 'PMAP', in relation to Royal Australian Air Force (RAAF) Base Point Cook (the base). The base is located approximately 20 kilometres (km) to the south-west of the Melbourne central business district. The location of the base is shown in **Figure 1** (**Appendix A**).

To address management action four detailed in the PMAP, JBS&G has been requested to prepare a per- and polyfluoroalkyl substances (PFAS) specific detailed ecological risk assessment (detailed ERA) in relation to the base and nearby areas which receive PFAS discharges from the base.

PMAP implementation works are part of a national Defence program to manage risks posed by PFAS contamination resulting from the historical use of aqueous film forming foam (AFFF) on and adjacent to selected Defence properties across Australia. The overall objective of the project is to achieve remediation and management in accordance with a so far as reasonably practicable (SFARP) approach. SFARP is to be determined through principles and processes similar to that developed by the Environment Protection Authority (EPA) Victoria duty to manage contaminated land. This process is set out in EPA publication *Guidance for the Clean Up and Management of Contaminated Groundwater (EPA Victoria Publication 2001.2)* (EPA, 2024).

Defence has completed detailed environmental investigations at and surrounding the base to understand the nature and extent of PFAS impacts. A list of documents and/or relevant investigations is provided in the references section of this report (**Section 12**). Analytical data has been obtained from the Defence Esdat database for the relevant reports and has been relied upon to inform this detailed ERA (**Appendix B**). Previous investigations which considered PFAS have been undertaken at the base and are summarised in the reports referenced below:

- *Stage 1 Preliminary Site Investigation – RAAF Base Williams – Point Cook* (Senversa, 2017).
- *Stage 2 Detailed Site Investigation – RAAF Base Williams – Point Cook, Victoria* (Senversa, 2020).
- *Stage 3 Ecological Risk Assessment – RAAF Base Point Cook (0932): Former Fire Training Area* (AECOM, 2022).

Previous reports identified the presence of elevated concentrations of PFAS within the base and the downgradient receiving environment (RAAF Lake and Port Phillip Bay). Previous investigations comprised broad contaminant assessments and were not focused on the assessment of PFAS issues.

JBS&G is preparing a PFAS focused assessment as documented in *RAAF Base Point Cook – PMAP Risk Management Actions and Conceptual Site Model Update* (JBS&G, 2026b). JBS&G (2026b) identifies the presence of PFAS impacted media within the extent of the base and the downgradient receiving environments (RAAF Lake and Port Phillip Bay) which exhibited concentrations of PFAS above tier 1 investigation thresholds.

The areas of interest (AOI) which are the focus of this detailed ERA are:

- On-base terrestrial areas.
- Aquatic receiving environments:
  - Port Phillip Bay (as distinguished into the foreshore and inshore areas[4]).
  - RAAF Lake (which occupies the northeast portion of the base and extends north into Point Cook Coastal Park).

It is noted that RAAF Lake includes land owned by Defence and land owned by Parks Victoria. The full extent of RAAF Lake is within the AOI for the purposes of this detailed ERA.

The relevant portion of Port Phillip Bay is identified as the inshore and the foreshore area. It is considered that the portion of Port Phillip Bay which may be materially affected by discharges from the base is likely to comprise the foreshore and inshore only, with concentrations of base attributable PFAS in environmental media rapidly decreasing with distance from boundary of the base into the water sections of the bay.

JBS&G developed a sampling and analysis quality plan (SAQP) to address data gaps identified by review of the information available at the commencement of the project, as documented in *PFAS Management Area Plan (PMAP) Delivery at RAAF Williams, Laverton and RAAF Base Point Cook Sampling and Analysis Quality Plan (SAQP) – Ecological Risk Assessment & Human Health Risk Assessment* (JBS&G 2024). JBS&G (2024) was implemented during November/December 2024 and May 2025, as documented in:

- *RAAF Base Point Cook – Sampling Event Factual Report, November-December 2024 to inform Human Health and Ecological Risk Assessment* (JBS&G, 2026a).
- *RAAF Base Point Cook – Sampling Event Factual Report, May 2025 to inform Human Health and Ecological Risk Assessment* (JBS&G, 2025).

This ERA has been prepared based on all available information, including data generated by recent investigation works completed as reported in JBS&G (2026b) and ongoing monitoring data collected up to June 2025.

1.2 Objectives

The objective of this detailed ERA is to quantify whether risks posed by base-originated PFAS contamination to ecological receptors[5] within the AOI are low and acceptable or potentially elevated.

1.3 Regulatory guidance

1.3.1 Australian

The Australian Government only provides general guidance regarding the basis and methodology for conducting ERAs. The relevant Australian Government guidance is:

- Section 18.5 of *Environmental Health Risk Assessment, Guidelines for Assessing Human Health Risks from Environmental Hazards* (enHealth 2012).

[4] The foreshore refers to the unvegetated sandy/rocky habitat between the high water mark and the vegetated/developed land immediately north, which extends approximately 5 to 20 m from the typical high tide mark. The inshore refers to the intertidal zone between the typical maximum high and minimum low tide lines.

[5] Ecological receptors, for the purpose of this detailed ERA, are identified as both taxonomic groups containing multiple individual species (e.g. mammals and birds) as well as individual species (e.g. black swan) and comprise both flora (plants and algae) and fauna (e.g. fish and reptiles).

- Schedule B5A of the *National Environment Protection (Assessment of Site Contamination) Measure, as amended 2013* (NEPC 2013).
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG 2018).
- National Chemicals Working Group of the Heads of Environment Protection Authorities (HEPA) *PFAS National Environmental Management Plan (Version 3.1)* (HEPA, 2026).

As the guidance provided in the documents listed above is of a general nature only (e.g. contains no equations for risk quantification), reference must be made to international guidance when preparing a detailed ERA in Australia (see **Section 1.3.2**).

1.3.2 International

The United States Environmental Protection Agency (US EPA) has prepared several guidelines in relation to conducting ERAs, the most relevant of which is *Wildlife Exposure Factors Handbook (EPA/600/R-93-187)* (US EPA, 1993). This guidance provides relevant risk quantification equations, but is not specific to PFAS.

Reputable international guidance for conducting ERAs specifically in relation to PFAS is limited to *Guidance Document, Guidance for Assessing the Ecological Risks of PFASs to Threatened and Endangered Species at Aqueous Film Forming Foam-Impacts Sites* (SERDP 2020). SERDP (2020) provides guidance for conducting quantitative ERAs in relation to PFAS based upon equations presented in US EPA (1993). SERDP (2020) also provides guidance in relation to methods for discretising the environment in consideration of different feeding guilds and dietary sources.

On the basis of the above, this detailed ERA has considered both US EPA (1993) and SERDP (2020).

1.4 Scope of works

The scope of works undertaken in preparation of this ERA, and in accordance with the requisite components on an ERA specified in the NEPC (2013) (Schedule B5a), comprised the following:

- Problem identification (**Section 2**).
- Tier 1 risk assessment (**Section 3**).
- Conceptual site model (**Section 4).**
- Receptor identification (**Section 5**).
- Exposure assessment (**Section 7**).
- Toxicity assessment (**Section 8**).
- Risk characterisation (**Section 9**).
- Sensitivity assessment (**Section 10**).
- Conclusions (**Section 11**).

1.5 Per- and poly-fluoroalkyl substances

PFAS represent a large group comprising thousands of individual anthropogenic chemicals. At the time of this report, a total of 30 PFAS compounds are typically quantified using commercially available National Association of Testing Authorities (NATA) accredited methods. Of these 30 compounds, the Australian

Government only provides protection of the environment-based criteria for perfluorooctane sulfonate (PFOS), perfluorohexane sulfonate (PFHxS), perfluorooctanoic acid (PFOA) and perfluorobutane sulfonate (PFBS)[6].

The Australian Government currently provides limited guidance regarding the toxicity of PFOS, PFHxS and PFOA to ecological receptors, with the available guidance largely referring to other information sources. The available Australian Government guidance is summarised in **Section 3.2** to **Section 1.1** and the international guidance relied upon by the Australian Government is summarised in **Section 3.3**.

For the purposes of this report:

- All of the detectable PFAS (i.e. 30 individual compounds) have been considered to inform the assessment of the presence and transport of PFAS from source to receptor.
- Only the PFAS for which there are Australian Government ecological criteria (i.e. PFOS, PFHxS and PFOA) have been considered in the process of screening environmental media to evaluate whether environmental media potentially poses an exposure risk to ecological receptors.
- Based on the outcomes of the screening process, only PFOS and PFHxS have been adopted for detailed risk assessment (assessed as the arithmetic sum of PFOS+PFHxS and herein referred to 'PFOS+PFHxS').

In absence of reliable quantitative criteria for the assessment of other PFAS compounds, or reliable quantitative laboratory detection methods for the identification of all PFAS, the capacity to assess PFAS on the whole of group basis is currently limited. This is considered to represent the Australian government's current policy settings and is reflective of the limitations of the scientific literature and commercially available assessment practices.

This report has focused on PFOS+PFHxS based on the following:

- The current Australian government's current policy settings.
- The relative concentrations of other PFAS present in site media. It is noted that PFOS+PFHxS is also noted to represent the majority of the PFAS mass in samples obtained from the AOI.[7]
- The relative potential for bioaccumulation, toxicity to aquatic and terrestrial species where such data is available.
- The limitations of scientific literature to provide adequate, reliable information which can justify undertaking quantitative ecological risk assessments on other PFAS constituents.

[6] PFBS criteria are only available in relation to potential human health exposure via consumption of drinking water. No PFBS criteria are currently available to assess potential ecological exposures.

[7] An exception to this was identified by review of results for PFHxA in RAAF Lake, which were found to be similar to the concentrations of PFHxS. This is considered to be of low consequence to the assessment given the other aspects of the Tier 1 screening process.

2. Problem identification

2.1 Site identification

2.1.1 Base and PMAP management area

The base and PMAP management area identification details are provided in **Table 2.1**, as obtained from JBS&G (2026b). The location of the base and the AOI relevant to the base extent is shown on **Figure 2**.

Table 2.1 Base identification and setting summary

Item	Details
Site address	Point Cook Road, Point Cook VIC 3030
Base area	Approximately 341 hectares (ha)
PMAP management area	The PMAP management area includes the base, the northern portion of RAAF Lake and a portion of land to the east of the base adjacent the former fire training area (FTA) and occupies an extent of approximately 400 ha.
Military area (Property ID)	0932
Municipality	Wyndham City Council
Current land use (On-base)	Operational Defence base which includes: • An active airfield and aircraft hangers in the central portion of the base used by RAAF, civilian aircraft and commercial tenants including Royal Melbourne Institute of Technology for flight training. • An active rifle range and former sewerage treatment plant (STP) in the southwestern corner of the base. • The southern portion of RAAF Lake and sand dunes in the northeastern portion of the base. • Port Phillip Bay foreshore area along the southern boundary of the base. • Temporary accommodation, RAAF museum, maintenance and administration buildings in the northwestern portion of the base.
Historical land use relevant to PFAS	Defence base used for administration, fire training, chemical and fuel storage, aircraft parking, refuelling and maintenance, airfield, STP, service station and carwash.

2.1.2 Terrestrial environment

RAAF Base Point Cook is located on coastal land abutting the Port Phillip Bay shoreline on its southern boundary. Site structures are primarily located in the western half of the base. The central portion of the base comprises an airfield and aprons. The eastern portion of the base comprises primarily undeveloped land surrounding RAAF Lake and the former fire training area (FTA).

The terrestrial environment comprises the majority of the base, with the exception of the southern half of RAAF Lake and the foreshore of Port Phillip Bay. The developed western portion of the base is observed to be primarily vegetated with grass and sparse shrubs and trees, provide potential habitat value. The central portion, which comprises an active airfield, likely provides limited ongoing value to fauna due to the operation of aircraft and presence of fencing, but is observed to be grassed. The eastern portion of the site (Area F) is likely to be subject to greater habitation and use for foraging/predation by fauna. The eastern portion is noted to be well vegetated and generally not disturbed by base or other human activities.

The base is identified as an active military base and training school, which includes a number of features associated with its primary purpose as an aerodrome and aircraft support area.

The terrestrial portions of the base are broadly separated into the following areas, as shown on **Figure 3**:

- Area A – Accommodation and administration.
- Area B – Rifle stop butt and sewerage treatment plant (STP).
- Area C – Museum and hangers.
- Area D – Southern hangers area.
- Area E – Airfield.
- Area F – RAAF Lake, dunes and Port Phillip Bay foreshore.

Within each investigation area listed above, sources of PFAS have been identified in previous environmental investigations (i.e. Senversa (2020) and AECOM (2022)), hereby referred to as source areas (SA). The SA associated with each of the areas are summarised in **Table 2.2**. A review of the online tool 'NatureKit' maintained by the Victorian government Department of Energy, Environment and Climate Action (DEECA 2026) was undertaken relating to mapped ecological vegetation classes with relevant details for context.

The entire terrestrial environment of the base is identified as an AOI.

Table 2.2 Key site areas and PFAS sources

Site Area	Description
Area A (northwest site portion, ~50 ha)	Highly developed area, predominantly occupied by accommodation and administration buildings. This area comprises more than 90% unsealed, grassed areas outside of building footprints. This area is predominantly developed and does not contain remnant vegetation. Area A includes three source areas as occupying three lateral extents: • SA03 Firefighting practice (PS30). • SA03 Firefighting practice (PS31). • SA10 Army and Airforce canteen service (AAFCANS), service station and carwash.
Area B (southwest site portion, ~30 ha)	A formerly developed portion of the base. This portion of the base is predominantly occupied by grass, with limited planted vegetation occupying the northwestern corner. A relatively small area (~4500 m^2) is mapped as containing 'Salt-tolerant and/or succulent shrublands' (see **Section 2.5**). This area contains a number of demolished site features including those previously identified as source areas: • SA08: Former STP. • SA08: Rifle range, munitions/sludge dump.
Area C (central portion, ~12 ha)	This portion of the site is highly developed, containing a number of buildings and infrastructure used for aerodrome and aircraft support. A relatively small area (~225 m^2) is mapped as containing 'plains grasslands and chenopod shrublands' (See **Section 2.5**). The ground surfaces outside of building footprints are more than 90% paved with asphaltic and concrete hardstands. Area C includes three source areas: • SA04: Firefighting practice area C. • SA05: Former fuel farm. • SA06: Old hangers, aircraft parking, refuelling and maintenance, paint tripping and waste collection pit.
Area D (central-southern portion, ~20 ha)	Area D comprises a number of disused buildings on the southern portion of the base abutting Port Phillip Bay. Outside of building footprints, the ground surfaces are primarily grassed, with limited paving restricted to the internal roads and northern structures. Approximately 30% of this area is sealed. A relatively small area (~2,000 m^2) is mapped as containing 'plains grasslands and chenopod shrublands' (See **Section 2.5**). Area D includes source areas: • SA02: Fire training compound (FTC). • SA02: Former fire station and solid waste – horizon tank.

Site Area	Description
Area E (Central portion, ~130 ha)	The central portion of the base is occupied by an airfield and apron. The majority (>90%) of the footprint is grassed, with the balance occupied by asphaltic pavements associated with the airfield runway and service roads. A number of areas are mapped as containing endangered and vulnerable vegetation (See **Section 2.5**). Area E includes SA07: Airfield, aircraft maintenance areas and aircraft crash sites.
Area F (Eastern portion, ~100 ha)	Area F comprises the eastern portion of the base which includes RAAF Lake. Area F is a primarily undeveloped portion of land fringing RAAF Lake and abutting the southeastern boundary of the base with Port Phillip Bay. The majority of Area F is mapped as containing endangered and vulnerable vegetation (See **Section 2.5**) including: • Plains grasslands and chenopod shrublands and woodlands. • Salt-tolerant and/or succulent shrublands. • Coastal scrubs grasslands and woodlands. Area F source areas: • SA01: Former FTA. • SA09: RAAF Lake and storm water discharge channels.

2.1.3 Aquatic receiving environment

The receiving environment comprises the aquatic environments within and downstream of the base (Port Phillip Bay and RAAF Lake). These environments have been found by previous investigations to be potentially affected by discharges of PFAS from the base from both surface water and groundwater.

Key hydrological features and water bodies within receiving environments are detailed in **Table 2.3,** and shown on **Figure 4A** and **Figure 4B**, with context provided in relation to potential sources of PFAS. The water bodies are identified as AOI for consideration in this ERA (as shown on **Figure 2**), with further information provided in **Section 2.4** and **Section 2.5**.

Table 2.3 Receiving environment general features

Water body	Details
RAAF Lake ~75 ha located approximately 50% within the base extent	RAAF Lake is a shallow ephemeral salt pan, and the southern portion is located within the base. The northern portion of the lake extends into Point Cook Coastal Park, which comprises Parks Victoria land. RAAF Lake is understood to act as a local groundwater sink, with piezometric pressure heads in the surrounding groundwater wells indicating groundwater flow occurs toward the lake. The lake is also in receipt of stormwater discharges via overland flow from the surrounding portions of the base (Area E and Area F) as well as the surrounding upgradient portions of the Point Cook Coastal Park. Additional stormwater inputs to the lake occur via underground stormwater pipe outlets from the broader base, as discussed in **Section 4.3.2**. RAAF Lake is identified to be affected by drying and wetting cycles. The drying and wetting cycles are related to the frequency and quantity of rainfall-based surface water discharges into the lake. A review has been undertaken of aerial imagery to evaluate the frequency and extent of drying/wetting cycles as part of the conceptual site model in **Section 4.3.2**.
Port Phillip Bay 1,930 km^2 Adjacent to the southern boundary of the base	Port Phillip Bay is a horsehead-shaped enclosed bay on the central coast of southern Victoria. Port Phillip Bay is a surface water body which receives surface water discharge from a variety of commercial/industrial sources (e.g. treated wastewater, drainage water etc). City of Geelong and parts of Greater Melbourne are situated adjacent to Port Phillip Bay. As such, the bay receives inflows from various urban, commercial, industrial and residential areas.

2.2 Environmental setting

The general environmental setting of the base and PMAP Management Area is summarised in **Table 2.4**, as obtained from the JBS&G (2026b).

Table 2.4 Environmental setting summary

Item	Details
Surrounding Land Uses	Uses surrounding the base are as follows: • **North**: The area directly north of the base comprises Point Cook Coastal Park, which contains the northern half of RAAF Lake followed by large acre residential properties and farmland zoned as Green Wedge south of Point Cook Homestead Road. North of Point Cook Homestead Road comprises low density residential housing. • **East**: The area directly east of the base comprises Point Cook Coastal Park and the historical Point Cook Homestead. The area extends into Port Phillip Bay, encompassing the Point Cook Marine Park and Ramsar listed wetlands, although neither are within or immediately adjacent to the base. • **West**: Along the southwestern boundary lies Werribee South, an agricultural (primarily market garden) area with market gardens and residential properties zoned as a Green Wedge. The northwest comprises a farming zone, with large acre residential properties. A small recreational area boarder the southwest portion of the base (i.e. off leash dog park). • **South**: Port Phillip Bay lies to the south, with the adjacent area commonly used for fishing. Beach access is partially restricted by fencing on either side of the base. However, access to Port Phillip Bay is possible from Point Cook Coastal Park and land southwest of the base.
Climate	Long term climate data from the Bureau of Meteorology (BoM) station located 7.62 kilometres from the northern boundary of the base (station ID 087031). Review of *Climate statistics for Australian locations Monthly climate statistics* (BOM, 2025) indicated the following between 1943 and 2025 (1941 to 2025 for temperature only): • Average annual rainfall is approximately 534.2 millimetre (mm). • Highest historical average monthly rainfall is approximately 56.0 mm in October. • Lowest historical average monthly rainfall is approximately 34.2 mm in February. • The historical mean maximum temperature is 25.8°C in January. • The historical mean minimum temperature is 5.2°C in July. The on-base Bureau of Meteorology (BOM) station (station ID 087185) began recording data in 2021. Long term trends have not been completed by BOM for this station. Comparison of the data reported by BOM for both stations indicates that the daily temperatures are similar between sites. Rainfall data over monthly and annual time periods are similar but daily reported readings exhibit more variation.
Topography	The base is flat and low-lying, with elevations ranging from 7.5 metres Australian Height Datum (m AHD) in the northwest to 0 m AHD along the Port Phillip Bay foreshore. RAAF Lake is situated between 1 and 2 m AHD. The surrounding land slopes generally downward from the northwest to the southeast. The topographical contours are shown on **Figure 4A**. Although records of flooding and historical connections between RAAF Lake and Port Phillip Bay are not available, topography suggests overland flow may occur during flood events.
Hydrology	The base is situated within the Port Phillip Bay and Westernport Catchment Management Authority (PPWCMA) region. The southern portion of RAAF Lake is present within the extents of the base, and the southern boundary of the base abuts Port Phillip Bay (**Table 2.3** and **Section 4.3.2**)

Item	Details
Geology and hydrogeology	The near surface geology at the base is characterised by two distinct profiles as follows: • The western two thirds of the base is underlain by newer volcanics clays and fractured basalt, covering the airfield, base area and western foreshore. • The eastern third of the base is underlain by Quaternary aged Pleistocene/Holocene aeolian deposits, covering RAAF Lake and the eastern foreshore. Previous investigations have documented the hydrogeological setting of the base. A summary is provided in the following section based on review of JBS&G (2026b), with additional details provided in **Section 3.4.5**. • Four key geological units have been identified as major aquifers underneath the base, as summarised following: ○ **Western Base extent** (airfield, hangars and supporting buildings): shallow fractured rock aquifer within fractured basalt across most of the base, with the exception of the former FTA and potentially RAAF Lake. ○ **Eastern Base extent** (the former FTA, RAAF Lake and Port Phillip Bay foreshore): – Shallow sand aquifer: unconfined aquifer within the Port Melbourne Sands Formation south of RAAF Lake and along the foreshore of the entire Base. – Quaternary aged clayey sand aquifer (i.e. the intermediate aquifer): confined aquifer confirmed as being present across the western half of the former FTA only. ○ **Entire site extent:** Brighton group aquifer (i.e. the deep aquifer). Confined within the Tertiary aged Brighton Group formation with groundwater lenses encountered at 15 to 17 metres below ground level (m bgl), which are reported to reach a piezometric equilibrium at 1.5 to 4 m bgl. These geological units are, in part, separated by aquitards which influence the potential for vertical migration of groundwater between some of the major aquifers.
Groundwater bore use	A bore search completed on Visualising Victoria's Groundwater in April 2025 identified 60 registered bores within two kilometres (km) of the base boundaries. The used of the identified registered bores within two km includes: ○ 17 domestic and/or stock; ○ 11 groundwater investigation and/or observations; ○ 9 irrigation; and ○ 23 unknown uses. Groundwater may also be used in the area by users with unregistered bores. The extraction and use of groundwater is not relevant to this ecological risk assessment in absence of a known connection between groundwater affected by base discharges and a receiving environment.
Acid sulphate soil	Senversa (2017) identified potential acid sulphate soil (PASS) along the foreshore and eastern third of the base, with the presences of PASS confirmed at approximately 2 metres below ground level (m bgl) in the southeastern corner. Seasonal groundwater changes due to stormwater recharge at RAAF Lake may influence the oxidation of PASS, but these natural processes are not considered significant unless disturbed.

2.3 Site history summary

This section presents a summary of the broader site history to provide context, predominantly based upon *Establishment of Point Cook* (RAAF 2025) and Senversa (2017).

RAAF Base Point Cook is synonymous with the birth of military aviation in Australia. The Central Flying School opened at RAAF Base Point Cook in February 1914. The base was designated as No. 1 Station Royal Australian Air Force and was the only Australian military air station until 1925. The RAAF established a cadet training scheme at the base in 1932 to provide pilot training.

Being in operation since 1914, RAAF Base Point Cook is the oldest military air base in Australia, and one of the world's oldest continually operating airfields. The base hosted numerous units which were relocated and disbanded over its operational history. At the time of this report, the base hosts No. 21 (City of Melbourne) Squadron and RAAF museum. The squadron provides airbase combat support to RAAF Williams, Laverton.

Defence has previously completed a range of detailed assessment at the base to understand the nature and extent of base-derived contamination, including PFAS. Senversa (2017) includes a comprehensive historical site assessment including review of historical titles, aerial photographs, historical photographs and public maps, as well as EPA and heritage records. A review and revision of the site history is not within the scope of this detailed ERA, however, a summary of key information is presented following:

- Historical titles indicate that the base was owned by the Victorian Government and a private individual until 1913, when it was purchased by the Commonwealth Government for the purpose of establishing the Central Flying School and to form the Australian Flying Corps. The base has been owned by the Commonwealth Government since 1913 to the present day.
- Historical aerial photographs indicate that the base was progressively developed including stages of demolition and replacement of site structures. Commencement of building infrastructure, hangars and workshops was evident in 1916, and the first bitumen runways were visible on site in 1943. Fire training pits in the FTA appeared to be open and draining toward RAAF Lake in the 1970s. Progressive demolition of structures occurred in the 2010s.
- No cleanup or pollution notices were reported in the EPA priority sites register as of November 2016.
- A former environmental audit was completed in 1996 by AXIS in relation to a monitoring station lease handback consisting of a soil and groundwater investigation at a portion of land previously leased to the National Air and Space Museum of Australia.
- A former environmental audit was also identified in relation to the former FTA, relating to the remediation of dense non-aqueous phase liquid (DNAPL) impacted soil. A second audit associated with ex-situ thermal desorption remediation and the condition of groundwater at the former FTA was completed in November 2022. As relevant to PFAS contamination, uncertainty remained around the impacts of PFAS contamination in the former FTA area. The audit indicated that minimal attenuation of PFAS is occurring in the area.
- No licences or permits were identified on the base, and no EPA landfill or waste management records were identified which were relevant to the base.
- Heritage records searches identified a considerable number of heritage items within the base. Review of the heritage items within the base is not within the scope of this detailed ERA.
- Senversa (2017) provided a comprehensive list of sources of which were not considered to be primary potential PFAS sources. This has not been reviewed as the scope of this detailed ERA is limited to PFAS only.
- Senversa (2017) provided a comprehensive history of the known and potential sources of PFAS at the base which were subsequently targeted for assessment within Senversa (2020) and JBS&G (2026b).

A list of the primary and secondary source areas is provided in **Table 2.5**, the locations of which are shown on **Figure 3**.

Table 2.5 Summary of RAAF Point Cook PFAS source areas

Reference	Name	PMAP indication of source significance	Current status[1]
SA01	Former FTA – Fire training site with significant PFAS contamination.	Primary source	Primary source
SA02	FTC – Storage and training area with AFFF use.	Primary source	Primary source
SA03	Firefighting practice areas PS301 & PS311 – Small training pads with limited PFAS contamination.	Diffuse primary source	Diffuse primary source
SA04	Fire training practice area C – Training area with PFAS contamination.	Primary source	Primary source
SA05	The former fuel farm – Bulk fuel storage facility with potential AFFF use.	Unknown	Diffuse primary source
SA06	Old hangers, aircraft parking, refuelling and maintenance – long-term operations site with PFAS contamination from spills.	Diffuse primary source	Diffuse primary source
SA07	The airfield – crash and emergency response site with PFAS contamination in soil and water.	Diffuse primary source with PFAS contaminated groundwater from upgradient SAs.	Diffuse primary source with PFAS contaminated groundwater from upgradient SAs.
SA08	Former STP , rifle range, munitions and sludge dump – waste disposal area with minor PFAS contamination.	Secondary source.	Secondary source.
SA09	RAAF Lake and stormwater discharge channels – stormwater sink with potential secondary PFAS contamination.	Secondary source.	Secondary source.
SA10	AAFCANS service station and car wash – decommissioned fuel station with low PFAS contamination.	Unknown.	Diffuse primary source.

[1] The current status of significance considers preliminary outcomes of investigation works undertaken since the PMAP was published, and represents the materiality of the area as a source of PFAS not whether the area poses a risk to ecological receptors.

2.4 Environmental values of areas of interest

The *Victoria Government Gazette – ENVIRONMENT REFERENCE STANDARD* (ERS) (Victorian Government 2021) defines the protected environmental values of surface water and groundwater. In accordance with the ERS (Victorian Government, 2021), environmental values do not apply to waters in any of the following:

(a) constructed -

(i) stormwater drains.

(ii) agricultural drains.

(iii) irrigation channels and drains.

(iv) wetlands.

(v) landfill cells.

(b) waste and wastewater treatment systems.

(c) reticulated water supply distribution systems.

(d) off-stream private dams.

(e) water tanks.

The environmental value of water dependent ecosystems and species applies to surface water at one of the following three levels of protection— largely unmodified, slightly to moderately modified or highly modified.

For toxicants in water '% species' refers to the '% species protection' values set out in the *Toxicant default guideline values for aquatic ecosystem protection Perfluorooctane sulfonate (PFOS) in freshwater* (ANZG, 2026). Unless otherwise stated, the level that must be used to determine the objectives is—

(vi) 99% for largely unmodified aquatic ecosystems.

(vii) 95% for slightly to moderately modified ecosystems.

(viii) 90% for highly modified aquatic ecosystems.

(ix) toxicants which are bioaccumulative must adopt the next level of protection higher than the level of protection set out for toxicants in water.

ANZG (2026) states that the 99% level should be applied to slightly to moderately modified ecosystems to assess for potential bioaccumulation related effects to aquatic species.

The ERS indicates the following:

- RAAF Lake falls within the 'Wetlands' segment and is considered a slightly to moderately modified ecosystem.
- Port Phillip Bay falls within the Port Phillip Bay segment – Geelong Arm and is considered a slightly to moderately modified ecosystem.

2.5 Ecological condition of areas of interest

A conservation management plan was prepared jointly for RAAF Williams Laverton and RAAF Base Point Cook by Biosis Research Pty Ltd (Biosis) as documented in *RAAF Williams Conservation Management Plan – Natural Environment Aspects* (Biosis 1992). The report presents the results of a conservation management plan study undertaken on the base.

A review of the ecological condition of the AOI has been undertaken to inform an assessment of the ecological function and value of the relevant water bodies. *Co-designed Catchment Program for the Werribee Catchment Region* (Melbourne Water 2018) identifies the base as within the Werribee catchment area. No downstream water courses are identified between the base and Port Phillip Bay. RAAF Lake is identified as one of the Werribee Catchment wetland areas which were assessed under the program.

The key metrics assessed by Melbourne Water (2018) related to the hydrological condition and capacity to support/sustain fish, amphibians, vegetation and birds. A summary of the assessment of current conditions and target conditions is provided following. Melbourne Water (2018) states that the 'Current Condition' relates to the assessed condition at the time of the report, and provides the following definitions in relation to the future ecological conditions:

- ***Current Trajectory:*** *This scenario represents the expected change in waterway health if current programs and approaches continue otherwise referred to as the 'business as usual' approach.*
- ***Target Trajectory****: This scenario represents what can be achieved with an increase in coordinated, collaborative and prioritised effort. It is the scenario that the strategy partners have agreed is required. Maintaining, and where possible improving, waterway health is what the Healthy Waterways Strategy proposes to achieve. This 'target trajectory' includes assumptions on policy allowing increased standards for stormwater management, increased resources for waterway management, willingness to take collaborative actions, and that it is feasible to establish continuous vegetation buffers along the majority of waterways.*

The current condition assessments were based on information available at the time of the report (2018), which predates a substantial extent of PFAS investigations undertaken and published by Defence. Condition assessments are based on qualitative categories ranging from 'very low' to 'very high', which are based on specific environmental assessment metrics relevant to the ecological condition assessment (e.g. vegetation health scores). It is noted that the target may be a lower score than the current score, which represents that some indicators will not be able to be improved and may decrease even after implementing conservation efforts. A summary of the assessment of current (2018) and target conditions for RAAF Lake is provided below.

The long-term key value outcomes for Werribee wetlands are summarised as follows:

- Wetlands birds: current ecological conditions score is 'low' with a target trajectory of 'low'. RAAF Lake is identified as significant bird habitat. It is reported that bird habitat may be severely impacted by impacts of climate change.
- Fish: no data available.
- Frogs: current ecological conditions score is 'high' with a target trajectory of 'moderate'. Significant decline is anticipated due to wetland water regimes and quality changes due to urbanisation and climate change.
- Vegetation: current ecological conditions score is 'low' with a target trajectory of 'moderate'. Implementing wetland buffer, vegetation condition and habitat form improvement programs expected to improve the score.

3. Tier 1 risk assessment

3.1 PFAS investigations

3.1.1 General

Defence has previously completed a range of detailed environmental investigations at and surrounding the base to understand the nature and extent of PFAS contamination in the AOI potentially affected by base-attributable PFAS, along with a range of other contaminants of potential concern (COPCs). Key documents have been referenced in **Section 1** and **Section 12**.

Previous assessments have identified sources of PFAS within the base, and the potential for base-attributable PFAS to be migrating from source areas to the AOI. Previous assessments have been undertaken which have sought to map and define sources and investigate the potential risks to ecological receptors. Recommendations and limitations of previous assessments were the driver for the current program of PFAS investigations. A review of key documentation in relation to PFAS investigations is included in this section to make key recommendations and limitations to be addressed through this detailed ERA.

The environmental data generated by historical investigations has been considered in undertaking this assessment. The location of historically identified SAs, hydrological features including AOI and historical sample locations are shown on **Figure 3** to **Figure 10E**. The environmental data are provided in **Appendix B**:

- **Table B1** – Soil analytical results.
- **Table B2** – Surface water analytical results and field chemistry.
- **Table B3** – Groundwater analytical results and field chemistry.
- **Table B4** – Biota analytical results and identifiers.
- **Table B5** – Sediment analytical results.
- **Table B6** – Porewater analytical results.

3.1.2 Preliminary site investigation (Senversa, 2017)

Senversa conducted a Preliminary Site Investigation (PSI) as part of a staged contamination investigation program at the base. It is critical to note that the Senversa (2017) was prepared prior to the publishing of the first version of the PFAS NEMP (HEPA, 2018) and, whilst PFAS were identified as key COPCs, the investigation was not focused on PFAS. Senversa (2017) was prepared in accordance with the NEPC (2013) framework. Senversa (2017) was conducted across the whole base, with general investigation areas identified as Area A to Area F (See **Section 2.1.2**).

Senversa (2017) documents a review of the site setting, environmental context, site history, interviews and inspections undertaken. Based on the information gathered Senversa (2017) documented a preliminary conceptual site model (CSM) which identified:

- A total of 91 potential source areas associated with 16 potentially contaminating activities. COPCs including a wide range of industrial contaminants (solvents, petroleum products, inert wastes, asbestos, heavy metals, explosives, nutrients, industrial oils, radioactive materials, pesticides, herbicides, fungicides, non-specific volatile organic compounds, disinfectants, bacteria and pathogens).

- Potential receptor groups including:
  - Human receptors:
    - On-site (workers, maintenance and construction workers)
    - Off-site (residence, maintenance, construction workers and recreational users of Port Phillip Bay and RAAF Lake).
  - Ecological receptors:
    - On-site aquatic receptors (southern half of RAAF Lake)
    - On-site terrestrial ecological receptors.
    - Off-site aquatic receptors (Port Phillip Bay southern half of RAAF Lake).
  - Buildings and structures.
- Based on a preliminary appraisal of source-pathway-receptor linkages, Senversa (2017) ranked the potential source areas in accordance with Defence's Contamination risk assessment tool (CRAT). Senversa (2017) identified ten high-risk potential source areas which are summarised in **Table 2.2**.

Senversa (2017) identified that historical environmental data were available with respect to a number of the potential sources, however this data was not provided with Senversa (2017). Senversa (2017) provided approximately 300 soil profile logs and a range of geospatial and construction details for groundwater wells installed within and proximal to the base.

Senversa (2017) recommended that a DSI be undertaken to assess the whether the identified potential sources represent an unacceptable risk to ongoing Defence use of the base or affected receptors on or adjacent to the base.

3.1.3 Detailed site investigation (Senversa, 2020)

Senversa conducted a Detailed Site Investigation (DSI) as part of the staged contamination investigation program at the base. Similar to Senversa (2017), whilst PFAS were identified as key COPCs, the investigation was not focused specifically on PFAS. Senversa (2020) was prepared in accordance with the NEPC (2013) framework. The DSI (Senversa 2020) was conducted across the whole base, with a focus of intrusive investigation works on the potential sources identified by Senversa (2017).

Senversa (2020) documented a program of soil and sediment sampling (264 locations), groundwater monitoring well installation, development and sampling (total 51 locations), surface water sampling from drains and RAAF Lake, stockpile sampling and analysis of water collected from two underground pits. In addition, the program was informed by field physical and chemical observations as made using ground penetrating radar (GPR), photo-ionisation detector (PID), water quality meters, magnetometer survey, radio-detection tracing, gamma radiation survey and x-ray fluorescence (XRF) measurements.

The outcomes of Senversa (2020) relevant to PFAS are summarised below:

- Senversa (2020) ranked SA01 as a 'very high' risk in accordance with the CRAT ranking criteria. A further 16 potential sources were identified as 'medium' risk of which four were associated with firefighting activities.
- Senversa (2020) was determined to have obtained sufficient information to perform a screening level assessment of human health and ecological risks at the site.
- Senversa provided a range of recommendations relating to the investigation and management of contamination, most notably that a strategic approach to the management of PFAS be developed.

Environmental data generated by Senversa (2020) which are relevant to the assessment of potential risks to ecological receptors as may be posed by PFAS have been considered as part of this detailed ERA.

3.1.4 Fire training area (SA01) ecological risk assessment (AECOM 2022)

AECOM (2022) comprises a screening level ecological risk assessment which is qualitative in nature. The assessment was undertaken to assess the potential for aquatic and terrestrial ecological receptors to be exposed to a range of COPCs, including PFAS. The assessment reviewed surface water, soil, sediment, groundwater and porewater data collected between 2014 and 2021 to evaluate the potential for exposure. AECOM (2022) considered four areas:

- The former FTA (on base): Characterised by heavily degraded coastal fringe and dune vegetation with a cover of predominantly exotic grasses, herbs and shrubs. An ecological survey performed in 2007 as part of an ecological risk assessment undertaken by AECOM, as documented in *Ecological Risk Assessment, Phase 1. Point Cook Foreshore, Former Fire Training Area RAAF Williams, Point Cook* (AECOM 2008)[8], identified that there was little, if any, value for threatened plant species or plant communities in the former FTA. Fauna present on the base was reported to likely include soil-dwelling invertebrates, reptiles, small mammals and birds. JBS&G note since the completion of this ecological survey, significant re-vegetation efforts have been made and that the status reported in AECOM (2008) is not likely to reflect the current condition.
- Parks Victoria land (off base)**:** A similar habitat to the base and is situated along the site's eastern boundary. This area is part of the Point Cook Coastal Park which is designated 'Crown Land' under the *Victorian Crown Land (Reserves) Act 1978*.
- Port Phillip Bay foreshore (on base): Intertidal habitat adjacent to the southern boundary of the base which comprises a narrow stretch of sand and mud, providing a foraging habitat for aquatic birds which feed on sediment dwelling invertebrates and biota[9].
- RAAF Lake (on base): characterised as an ephemeral shallow saline lake and coastal salt marsh which extends along the eastern boundary from the base into the adjoining State lands of the Point Cook Coastal Park. This area investigated as part of AECOM (2022) provides habitat to several protected and endangered flora and fauna.

AECOM (2022) characterised potential risks to receptors by comparison of statistical metrics (e.g. concentration range, geometric mean and maximum concentrations) against assessment criteria adopted from tier 1 guidance. The adopted criteria included sediment and porewater criteria derived in *Chronic effects and thresholds for estuarine and marine benthic organism exposure to perfluorooctane sulfonic acid (PFOS)-contaminated sediments: Influence of organic carbon and exposure routes* (Simpson *et al.*, 2021), as well as the PFAS NEMP Version 2.0 (HEPA, 2020) (which has been since superseded).

The outcomes of the preliminary assessment reported in AECOM (2022) are summarised in **Table 3.1**. JBS&G notes that the outcomes were presented in relation to PFOS only (i.e. rather than considering PFOS + PFHxS concentrations together as per HEPA (2026). This has a material impact on the concentrations reported as PFHxS comprises a significant proportion of the detected PFAS on the base and receiving environments.

The outcomes of the preliminary assessment reported in AECOM (2022) have been assigned a colour code s follows:

- Green – outcome indicates low risk without substantive data gaps.
- Orange – outcome indicates potential risk or substantive data gaps identified.

[8] This report was not available to JBS&G for review.
[9] JBS&G notes that AECOM referred to the intertidal zone as the 'foreshore'. JBS&G has considered the foreshore to comprise the area above the typical high-tide mark and has grouped data within this report according to that designation.

Table 3.1 AECOM (2022) tier 1 assessment outcomes (PFOS only)

Media	Range	Geometric Mean	Adopted Criteria	Factor of Exceedance Geomean (max)	Risk Characterisation[1]
Port Phillip Bay					
Porewater (µg/L)	0.1-117	0.97	6	0.16 (20)	Unlikely with uncertainty.
Sediment (mg/kg)	0.003-0.1045	0.016	0.06	0.27 (1.7)	Unlikely based on assumption of representativeness.
RAAF Lake					
Soil (mg/kg)	<0.005-14	0.12	1 (direct contact) 0.01 (indirect)	0.12 (14) 12 (1400)	Potential direct and bioaccumulation risks identified.
Surface water (µg/L)	1.67-7.71	3.09	0.00023	13 000 (34 000)	Potential direct and bioaccumulation risks identified.
SA01 – Former FTA					
Soil (mg/kg)	0.0013-3.46	0.05	1 (direct contact) 0.01 (indirect)	0.05 (3.5) 5 (350)	Unlikely based on extent of area.

[1] This column has summarised the risk characterisation and data gaps identified in the for AECOM (2022).

AECOM (2022) concluded that there was a low potential for adverse impacts to intertidal biota from chlorinated constituents, benzene, petroleum hydrocarbons and metals/metalloids. A potential for ecological risks attributable to PFAS was identified in the intertidal area of Port Phillip Bay. The report recommended further assessment of ecological risk associated with PFAS as a result of tier 1 screening criteria exceedances as well as data-gap, as summarised below.

Further assessment of ecological risk associated with PFAS was recommended as a result of either exceedances of tier 1 screening criteria, or uncertainty associated with data gaps reported in the AECOM (2022) as summarised following:

- Port Phillip Bay foreshore (on base): Limited porewater data were available at the time of AECOM (2022), and this was identified as data gap in relation to the potential exposure of receptors within Port Phillip Bay. The following additional assessment was recommended which have been undertaken as part of recent works implemented by JBS&G (**Section 3.1.5**):
    - A desktop assessment to understand the potential for PFAS direct ecotoxicity to aquatic biota along the foreshore and to assess whether there is an ongoing PFAS source and migration pathway between the base and foreshore.
    - A site-specific assessment to further refine exposure assumptions for higher order predators that may consume inter-tidal sediment-dwelling aquatic biota along the foreshore adjacent to the base.
- Former FTA: AECOM concluded that there was low potential for adverse effects to terrestrial receptors within the former FTA from exposure to PFAS in soil. No further assessment was recommended.

- RAAF Lake: AECOM (2022) reported that the potential for PFAS bioaccumulation related effects to ecological receptors within the salt marsh area and RAAF Lake was unknown. AECOM concluded that additional data was required to refine the current understanding of adverse ecological impacts (direct and indirect toxicity) from PFAS exposure at RAAF Lake. The following additional data collection was recommended:
    - Collection of temporal data for surface water, porewater and sediment.
    - Collection of biota for PFAS tissue analysis.
    - Ecological survey to characterise the presence of flora and fauna.

3.1.5 Data gap investigations

As previously noted, in 2024, JBS&G developed a JBS&G (2024) to address the key data gaps identified in relation to AECOM (2022) and undertook field investigations during 2024/2025, reported in JBS&G (2026a and 2025). In relation to this detailed ERA, the following key data gaps, including consideration of the former FTA area were identified in JBS&G (2024):

- An updated review of ecological receptors which utilise the terrestrial and aquatic AOI, inclusive of characterisation of ROC for detailed risk assessment, was required to inform detailed risk estimates.
- Terrestrial areas:
    - Representative concentrations of PFAS in ecologically relevant soil (<0.5 m bgl) across the base were unknown.
    - Representative concentrations of PFAS in terrestrial vertebrates and invertebrates potentially impacted by Defence activities were unknown. It is noted that the absence of terrestrial vertebrate PFAS concentration data was not identified as a key data gap which warranted specific sampling and/or analysis to address.
- Aquatic areas:
    - The significance of PFAS concentration ranges in RAAF Lake as related to the wetting and drying cycles was unknown.
    - Representative concentrations of PFAS in surface water potentially impacted by Defence activities were unknown.
    - Representative concentrations of PFAS in pore water potentially impacted by Defence activities were unknown.
    - Representative concentrations of PFAS and total organic carbon (TOC) in sediment within waterways potentially impacted by Defence activities were unknown.
    - Representative concentrations of PFAS in aquatic biota (vegetation, benthic and pelagic invertebrates, prey and predatory fish) within waterways potentially impacted by Defence activities were unknown.

JBS&G (2024) was prepared based on a previous version of the PFAS NEMP (HEPA, 2020), which has been revised from Version 2.0 to Version 3.1 (the current version). Whilst the overall guidance in relation to the recommended approaches to ecological risk assessment data collection have not been materially changed between Version 2.0 to Version 3.1, it is noted that ecological assessment criteria were updated including:

- A number of criteria derivation methodology updates, with updated soil assessment criteria based on bioaccumulation modelling for Australian mammals (for indirect exposure criteria relevant to terrestrial soil).
- Provision of an interim terrestrial soil direct contact PFOA criterion for reptiles.

- An update to the PFOS DGVs for freshwater species protection.
- Inclusion of a biota threshold value (BTV) to assess for potential dietary risks to air breathing species by foraging/predation on aquatic species.

JBS&G (2024) did not identify reptiles as potential receptors warranting detailed risk assessment. Further consideration has been made in this detailed ERA with relation to the assessment of reptiles given the update to HEPA (2026) following finalisation of the SAQP.

Both JBS&G (2026a) and JBS&G (2025) document individual sampling events undertaken as part of JBS&G (2024) implementation. The sampling events were conducted in general accordance with JBS&G (2024), with minor deviations identified in relation to the number of aquatic biota sub-types able to be collected at each of the nominated sampling locations. It is noted that aquatic biota was not able to be identified or sampled from RAAF Lake and accordingly an aspect of the identified data gaps was not directly addressed in implementation of JBS&G (2024).

HEPA (2026) was updated between the issue of the JBS&G (2026a) and JBS&G (2025), and this is reflected in adoption of criteria, tables of analytical results and discussions of exceedances presented in the relevant reports. It is noted that all relevant environmental data have been consolidated as presented in **Appendix B**, with the current environmental data tables providing comparison to the most recent applicable investigation criteria (as further discussed in **Section 3.2**).

The identified deviations from the proposed scope of works for sampling and analysis, as well as the revisions to HEPA (2026) have been considered in the risk assessment methodology and data interpretation presented in this detailed ERA. The investigation adequacy is discussed in more detail in **Section 3.5.2**.

The factual reports each present specialist ecologist reports as documented in *RAAF Base Point Cook Ecological Survey, Observations and Biota Sampling for Ecological Risk Assessment and Human Health Risk Assessment* (Elgin 2025a) and *RAAF Base Point Cook May 2025 Aquatic Biota Sampling and Observations for Human Health and Ecological Risk Assessment (JN24541)* (Elgin 2025b). The reports document an ecological survey conducted to address one of the data gaps identified by the former AECOM (2022), and observations, sampling and analysis of aquatic biota.

Key observations reported by Elgin are provided in **Table 3.2**. A detailed review of the ecological condition and identification of key receptors is provided in **Section 5**.

Table 3.2 Elgin ecological observations

AOI	Observation Summary

Port Phillip Bay	<u>Ecological survey (Coastal foreshore)</u>
	Elgin completed a survey of the coastal foreshore area in Area F (**Figure 3**). The area was reportedly mapped as coastal alkaline scrub and berm grassy shrubland. The vegetation community was in degraded condition with weed species common.
	Fauna were observed in the foreshore zone during the site walkover including domestic pigeon, little raven, magpie and willie wagtail. Waterbirds were observed adjacent to the foreshore including the silver gull, black swan and chestnut teal. No threatened fauna listed under the Flora and Fauna Guarantee Act 1988 (FFG) or *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were observed during the site survey.
	<u>Biota sampling observations</u>
	Elgin reported that marine habitats were observed along the Port Phillip Bay shoreline at and proximal to all twenty sampling locations (SW266/SD275 to SW275/SD284 and SD285 to SD294).
	The eastern and western ends of the shoreline were dominated by sand, sublittoral sand and muddy sand habitats. At the eastern end of the sub-tidal zone were patches of infralittoral rocky reef habitat with low relief. Aquatic vegetation observed included seagrass and green algae including sea lettuce, *Caulerpa remotifolia*, *Codium fragile,* filamentous red algae and foliose red algae. Washed up aquatic vegetation included brown alga (*Undaria pinnatifida*).
	The habitat in the central area of the shoreline (SW269 to SW271) was primarily rocky reef habitat with interspersed patches of sand. Aquatic vegetation was dominated by sea lettuce with stands of codium green algae also observed.
	Biota sampling efforts included collection of 150 biota samples across 20 locations. The species observed are summarised below:
	• Several fish species were identified including:
	  ○ Prey fish including juvenile mullet, juvenile flounder, tommy rough, gobies, juvenile toadfish, juvenile flounder, hardyheads, flathead, garfish, yellow-eye mullet and garfish. Juvenile predatory fish are prey fish in the context of ensuing dietary uptake models presented in this report.;
	  ○ Predatory fish including bream and flounder.
	• Juvenile flounder were the most abundant fish observed in November/December 2024 and hardyheads were the most abundant fish observed in May 2025, in the sand and sublittoral sand and muddy sand habitats. Other fish which were observed but not sampled and analysed included fiddler ray, blennies, adult mullet, gummy shark, blennies and juvenile boarfish.
	• Several benthic invertebrate species were identified including pacific oyster, blue mussel, pipi, common limpet, sand shrimp, shrimp, shore crab, snails, eleven-arm sea stars and sea centipedes.
	• Observed pelagic invertebrates were limited to jellyfish and cephalopods (i.e. dumpling squid).
	• Observed aquatic vegetation species included seagrass Zostera muelleri, sea lettuce (*Ulva lactuca*), Caulerpa remotifolia, Codium fragile, filamentous red algae and foliose red algae.
	Whilst efforts were made, pelagic invertebrates other than jellyfish and calamari were not observed or caught at any location.
	No material changes were reported between the November/December 2024 and May 2025 sampling rounds, except for a change in abundance of specific species for sampling, primarily relating to fish and benthic invertebrates.

AOI	Observation Summary
RAAF Lake	Ecological survey (RAAF Lake foreshore) Elgin completed a survey of the area surrounding RAAF Lake (**Figure 3**, Area F). The area was reportedly characterised by a number of saltmarsh community plant species. The FFG-listed salt Lawrencia (*Lawrencia spicata*) was not observed in the areas inspected. The saltmarsh community was moderately disturbed with several weeds observed throughout the community. Fauna observations were limited to two gastropod shells including an unidentified micro gastropod shell in the lake sediments and the invasive Italian snail shell. No threatened fauna listed under FFG or EPBC Act were observed during the site survey. Biota sampling An attempt to sample RAAF Lake for biota was made during both sampling rounds. Elgin reported that RAAF Lake was dry in November/December 2024 and mostly dry in May 2025, with the exposed lakebed characterised by grey silts and extensive white salt crust cover. An inaccessible very shallow and broad pool was observed in the middle of the Lake in May 2025. Limited observations of biota included unidentified gastropod snail shells within bed sediments and the invasive white Italian snail. The gastropod shells were small (1-2 mm) and it was not able to be verified whether the shells contained fauna. Analyses of the gastropod shells was considered to be unviable given the size and inability to confirm the presence of fauna within the shells. Elgin reported that the gastropods were observed to be aggregated on some plants in the surrounding terrestrial fringe (*Juncus krausii*). Elgin reported that there was limited evidence of birds including feathers adjacent to the empty snail shells. A flock of birds was observed in the central portion of the lake, but the species were not able to be confirmed. Microscopy analysis was undertaken on bed sediments to evaluate the potential presence of benthic invertebrates within RAAF Lake, as summarised below: • All locations featured dead shell assemblage including the micro gastropod shells. • Sample SD295 also contained foraminifera and urchin spines. • A brine shrimp was identified in sample from location SD229. It was reported that the individual was most likely living at the time of sampling. The absence of observations of other or more abundant fauna was reported as likely to be attributable to the dry conditions of RAAF Lake, noting that it is considered unlikely that fish could survive the observed dry conditions and are unlikely to be present in the lake.

JBS&G (2025) concluded that a sufficient environmental dataset was available to prepare a risk assessment. JBS&G (2026a and 2025) recommended that a full review and discussion of the results is undertaken as part of the ERA with consideration of the entire dataset generated by both the November 2024 and the May 2025 sampling rounds. The dataset has been reviewed herein, with the data adequacy and confidence factored into the risk assessment conclusions.

3.2 PFAS NEMP Version 3.1 (HEPA, 2026)

3.2.1 General

HEPA (2026) provides ecological screening criteria for the following constituents and media:

- Ecological guideline values for PFOS and PFOA protective of direct toxicity to ecological receptors.
- Ecological guideline values for PFOS and PFOA in soil protective of indirect exposure as derived based on food-web modelling and dietary exposure assessment for eleven Australian mammals.
- Ecological biota guideline values for PFOS+PFHxS and PFOA for mammalian and avian receptors, based on a simplified exposure assessment for a representative bird and mammal species.
- Biota guideline values for bird eggs for PFOS+PFHxS and PFOA.

- Ecological water quality guidelines for freshwater and interim marine (PFOS and PFOA only).

There are a number of comments provided in the HEPA (2026) that must be considered when interpreting the data and assessing whether a site-specific risk assessment is required. These include:

- The indirect exposure soil guideline may not be protective of specific Australian animals.
- The avian diet value may not be protective of migratory wading birds which have a high food intake due to needing to gain weight rapidly.
- The mammalian and avian diet values may not be protective of reptiles and amphibians.
- The water quality guidelines do not account for effects that result from the biomagnification of toxicants in air-breathing animals or in animals which prey on aquatic organisms.

The guideline values are discussed further in the following sections.

3.2.2 Soil – direct exposure

HEPA (2026) does not provide a detailed rationale for the derivation of the PFOS and non-reptile PFOA direct contact soil quality guidelines. The values are the same as the PFOS and non-reptile PFOA direct contact soil quality guidelines provided in the previous PFAS NEMP Version 2.0 (HEPA, 2020). The PFAS NEMP Version 2.0 (HEPA, 2020) states that the direct ecological soil-quality guidelines are based on application of the human health screening criteria for public open space land use. Reference is made to direct contact soil quality criteria developed in the Canadian Council of Ministers of the Environment (CCME) *Scientific Criteria Document for the Development of the Canadian Soil and Groundwater Quality Guidelines for the Protection of Environmental and Human Health – Perfluorooctane Sulfonate (PFOS)* (CCME, 2021) which is discussed in **Section 3.3**.

Soil criteria developed for the protection of mammalian receptors assume a component of exposure is attributable to consumption of impacted biota (as discussed in **Section 3.2.3**).

By review of the criteria discussed in **Section 3.3** the adopted current HEPA (2026) direct soil quality guidelines are likely to be protective of plants and invertebrate exposure to impacted soil but are not likely to be protective of avian/mammalian receptor exposure to soil. The guideline for ecological direct exposure as per the PFAS NEMP Version 3.1 (HEPA, 2026) is summarised in **Table 3.3**.

Table 3.3: Ecological guidelines values for soil (direct) (HEPA, 2026)

Exposure scenario	PFOS (mg/kg)	PFOA (mg/kg)
Interim ecological direct exposure – protective of terrestrial plants and invertebrate exposure (see **Section 3.3**).	1	10
Draft ecological direct exposure – protective of limited terrestrial reptiles (see **Section 3.3**).	-	0.005

3.2.3 Soil – indirect exposure

Supporting Document 2 of the HEPA (2026) documents the technical approach to derivation of the indirect soil exposure guidelines for PFOS and PFOA. The approach can be summarised as follows:

- The indirect soil exposure guidelines considers potential bioaccumulation based exposures to mammals only (i.e. no consideration of avian receptors).
- Eleven species of mammal are selected as ROC from various trophic levels and feeding guilds:
    - Primary herbivorous consumers herbivorous:
        - Broad-toothed rat (small eutherian).
        - Tammar wallaby (medium marsupial).
        - Eastern grey kangaroo (Large marsupial).

- Secondary omnivorous consumers:
  - Ash-grey mouse (small marsupial).
  - Dusky antechinus (small marsupial, primarily insectivorous).
- Swamp rat (medium eutherian, omnivorous).
- Southern brown bandicoot (medium marsupial, omnivorous).
- Short-beaked echidna (medium monotreme, insectivorous).

- Tertiary consumers:
  - Fat-tailed dunnart (small marsupial, omnivorous).
  - Spotted-tailed quoll (medium marsupial, carnivore).
  - Dingo (large eutherian).
- Exposure parameters are adopted for each of the receptors of concern (ROCs) including bodyweight, soil intake rate, food intake rates and dietary composition. The adopted parameters are largely based on preceding Canadian guidance and *food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds* (Nagy KA 2001).
- Exposure point concentrations (EPCs) are estimated for each medium. This involves the use of plant transfer factors (TFs) and biomagnification factors (BMFs) to model the EPCs for biota based on source soil concentrations.
- A daily threshold effects dose (DTED) is adopted for mammals for both PFOS (0.01086 mg/kg.bw/day) and PFOA (0.01 mg/kg.bw/day), based on critical toxicity values (CTVs) for PFOS (0.1086 mg/kg.bw/day) and PFOA (0.1 mg/kg.bw/day).
- A background exposure is included, which assumes that the species obtain 25% of the DTED from background sources unrelated to soil contamination.
- The screening criteria are based on the concentration in soil, rounded to the nearest 0.001 mg/kg, which would cause the estimated dose of PFOS and PFOA to exceed the DTED.

The interim guideline for ecological indirect exposure as per HEPA (2026) is summarised in **Table 3.4**.

Table 3.4 Ecological guidelines values for soil (indirect) (HEPA, 2026)

Exposure scenario	PFOS (mg/kg)	PFOA (mg/kg)
Interim ecological indirect exposure	0.003	0.003

3.2.4 Freshwater and interim marine default guideline values

The HEPA (2026) provides freshwater DGVs for the protection of 80%, 90%, 95% and 99% of freshwater species for both PFOS and PFOA, with relevant criteria (90%, 95% and 99%) shown in **Table 3.6**. The freshwater DGVs for PFOS have been sourced form ANZG (2026), and the source of the freshwater PFOA values is not stated. JBS&G understands these have been sourced from the Department of Climate Change, Energy, the Environment and Water (formerly Department of the Environment and Energy (DOEE)) guidance document *Commonwealth Environmental Management Guidance on PFOS and PFOA* (DOEE 2016). The freshwater guideline values are adopted as interim screening values for assessment of marine environments.

Table 3.5 Freshwater and interim marine water criteria, HEPA (2026)

Exposure scenario	PFOS (µg/L)	PFOA (µg/L)
90% spp. DGV	4	632
95% spp. DGV	0.9	220
99% spp. DGV	0.02	19
Biota threshold value	0.0005	-

3.2.5 Biota guideline values

Supporting Document 2 of the HEPA (2026) outlines the technical approach to the derivation of the biota guideline values (BGVs) for PFOS+PFHxS and PFOA. A reference concentration was estimated based on adopted toxicity reference values (TRVs), divided by the food intake to bodyweight ratio (FI:BW). The values are published as based on wet-weight (ww) concentrations.

Table 3.6 HEPA (2026) biota guideline values

Parameter	Unit	Mammals		Birds	
		PFOS	PFOA	PFOS	PFOA
Bodyweight	Kilograms (kg)	-[1]		0.032	
Food Intake rate	kg/day	-[1]		0.03	
Food Intake: Bodyweight Ratio	Kg(ww)/ kg(body weight (bw))	0.36[2]		0.94[3]	
Critical Toxicity Value	mg/kg(bw)/day	0.11[4]	0.1	0.772	-
Uncertainty Factor	-	100[4]	100	100	-
Tolerable Daily Intake	mg/kg(bw)/day	0.0011[4]	0.001	0.0077	0.0023[5]
Background Dose	%	25		25	
Reference Concentration	mg/kg(ww)	0.0031	0.0028	0.0082	0.0024

[1] HEPA (2026) and the original source paper from which the food intake to bodyweight ratio is adopted[10] does not explicitly state the food intake or bodyweight of the platypus which was adopted to represent mammalian exposures.

[2] Based on a Platypus as measured during late stage lactation. HEPA (2026) reports that this value is considered suitably conservative for a range of mammalian species.

[3] Parameter based on Nagy KA (2001) allometric equations. The avian FI:BW underpinning the guidance may be too low for some Australian species such as migratory waders, inferring the guidance value could be under-protective for these species.

[4] This value is directly obtained from Environment and Climate Change Canada's (ECCC) *Canadian Environmental Protection Act 1999 Federal Environmental Quality Guidelines Perfluorooctane Sulfonate (PFOS)* (ECCC 2018).

[5] This value is an interim PFOA TDI. It is based on developmental toxicity assuming a similar PFOS and PFOA maternal loading occurring to eggs, and a threefold difference in lethal does 50% (LD50) between PFOS and PFOA. The adopted value comprises 30% of the PFOS TDI (i.e. 7.7 µg/kg.bw/day * 0.3 = 2.3 µg/kg.bw/day).

3.3 Canadian guidance – soil, direct contact

CCME (2021) presents a PFOS soil quality guideline for direct contact based on a range of land-uses. The criteria comprise threshold effects concentrations (TEC) derived by dividing estimated species sensitivity distributions (ESSDs) by an UF.

The ESSDs are provided for agricultural and residential/parkland uses as well as commercial and industrial land uses based on 75% spp. 50% spp. respectively:

[10] *Seasonal changes in food selection and nutrition of captive platypuses (Ornithorhynchus anatinus)* (Thomas, J.L. *et al*, 2018)

- Agricultural and residential/parkland (75% spp.) = 22.1 mg/kg.
- Commercial industrial land use (50% spp.) = 61 mg/kg.

An UF of 2 is applied to the agricultural and residential/parkland ESSD, but not to the commercial/industrial ESSD, and the resulting TECs rounded to the nearest 10 mg/kg:

- Agricultural and residential/parkland (75% spp.) = 10 mg/kg.
- Commercial industrial land use (50% spp.) = 60 mg/kg.

These criteria, whilst not directly adopted herein, provide a sufficient basis to consider that the HEPA (2026) approach of adopting the PFOS+PFHxS HIL C criterion as the direct contact criteria is likely conservative.

3.4 Tier 1 screening

3.4.1 General

Available environmental data for the AOI has been compared with tier 1 criteria provided in published guidance to assess potential ecological risks.

HEPA (2026) presents tier 1 criteria for different PFAS compounds to assess different endpoints. Criteria are presented for different media based on assessment of PFOS only, PFOS+PFHxS and PFOA. The EPCs have been calculated for each media based on PFOS only, PFHxS+PFOS and PFOA, in the following sections for consistency across media. Where tier 1 criteria are available, they are specified in the subsequent sections.

Exceedances of the identified tier 1 criteria are shown by colour coding sample locations in **Figure 5**, **Figure 6**, **Figure 8** and **Figure 9**. HEPA (2026) does not provide criteria for sediment, however, the sample locations are colour coded based on ranges of PFOS+PFHxS in **Figure 7**. The colour coding has been based on the maximum reported concentration at the sample location (i.e. for soil with multiple depths, or surface water with multiple dates, the maximum concentration was adopted). Biota data are shown as available for all sample locations, with PFOS+PFHxS and PFOA criteria exceedances identified in call-out boxes.

The tier 1 screening process has been undertaken to identify the environments, locations and PFAS compounds which warrant focus within this risk assessment, within the context of constituents for which regulatory guidance is available.

3.4.2 Statistical analysis

Statistical analyses have been undertaken on datasets generated by discretising the environmental data into distinct media (e.g. soil and sediment), AOI, contaminant/contaminant group (e.g. PFOS, PFOS+PFHxS and PFOA) and biota type (e.g. aquatic vegetation). The statistical analyses have been undertaken to determine the most appropriate method to estimate a representative exposure point concentration (EPC) and to document the adopted EPC. Datasets have been generated by review of **Table B1** to **Table B5** in **Appendix B**, with the following processing steps undertaken:

- Duplicate/triplicate values were removed from the datasets such that only the primary sample data has been considered. Based on the lack of significant concerns regarding the representativeness of the primary sample precision from a review of historical data and the large data set available, this was considered appropriate. It is noted that the inclusion of duplicate/triplicate sample artificially raises the number of samples and may lead to inappropriate selection of EPCs (e.g. a 95% upper confidence limit (UCL) mean rather than a maximum despite there being less than ten primary samples).

- The datasets were inputted into *ProUCL: Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. Version 5.2* (US EPA, 2022a), herein referred to as 'ProUCL (US EPA, 2022a)'. The datasets were analysed by ProUCL (US EPA, 2022a) to estimate UCLs of the mean concentrations of each contaminant (PFOS+PFHxS, PFOS and PFOA).
- ProUCL (US EPA, 2022a) analysed the concentration distributions and recommended which distribution most appropriately represented the datasets (e.g. normal, log-normal, gamma, non-parametric).
- For datasets with censored data, ProUCL (US EPA, 2022a) implemented data substitution methods based on imputed statistical values to provide some estimates of the UCL, however not all UCLs adopted from datasets with censored data were based on imputed statistical techniques (e.g. Kaplan-Meier adjusted gamma UCL).
- The datasets including imputed values were then subject to analysis using techniques appropriate to the dataset distribution.

Detailed statistical outputs are provided in **Appendix B** for soil, surface water, sediment and biota, which form the basis of the EPCs discussed in the following sections.

ProUCL (US EPA, 2022a) provides UCL estimates on datasets with as little as three distinct observations however the UCLs are considered unreliable, as no meaningful assessment of concentration distribution can be made with such small datasets. JBS&G has adopted a nominal minimum of ten distinct observations (excluding non-detects) in a sample dataset as the threshold to consider UCLs in screening purposes and risk estimation, which is consistent with the recommendation in *ProUCL Version 5.2.0 Technical Guide: Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations* (US EPA, 2022b). For datasets with less than ten distinct observations the maximum value in the dataset was adopted for screening purposes and risk estimation.

Statistical analysis of groundwater data has been limited to estimating the range of concentrations observed in groundwater wells. For the purposes of this detailed ERA, the range of concentrations is adopted to characterise the groundwater and potential risks to receptors of groundwater.

3.4.3 Focus of investigation works and available data

The following sections of this report have considered all the analytical data available for key environmental media. Recent investigations as undertaken by JBS&G were focused on the characterisation of environmental media to inform ecological risk assessment. The purpose of the subsequent sections is to identify which environmental media represent a potential risk to ecological receptors, as well as to inform the CSM documented in **Section 4**. The available data include:

- A comprehensive soil PFAS analytical dataset across source areas and non-source areas in the terrestrial portions of the base.
- A comprehensive groundwater PFAS analytical dataset across source areas and non-source areas in the terrestrial portions of the base.
- Porewater data collected over three sampling rounds along the foreshore of Port Phillip Bay. The porewater data were collected to inform potential risks to ecological receptors which may forage within saturated sediments proximal to Port Phillip Bay. No porewater was collected from RAAF Lake.
- A comprehensive surface water dataset for on-base drainage lines and Port Phillip Bay. Surface water data were collected within RAAF Lake over three sampling rounds and exhibit variability which is further discussed in **Section 3.7**, with implications considered throughout this detailed ERA.
- A comprehensive sediment dataset within Port Phillip Bay foreshore and inshore areas. The sediment data collected within RAAF Lake are identified as potentially biased due to sampling constraints as discussed in **Section 3.7**.

- A sufficient dataset for biota within Port Phillip Bay foreshore and inshore areas.

A discussion of the adequacy is provided in **Section 3.7** with of the results of the screening level assessment against tier 1 criteria in the subsequent sections.

3.4.4 Soil

Soil analytical data have been reviewed against tier 1 screening criteria presented in HEPA (2026). The majority of soil data have been obtained from source areas within the base. Additional samples have been collected from areas outside of specific sources. Soil data have been distinguished into investigation areas (source area vs. non-source area) and accessibility (exposed soil vs. all soil).

Potential ecological exposures and bioaccumulation will typically only occur in ecologically active shallow soil (0 to 0.5 m bgl). The following datasets have been generated by the assessment:

- All soil depths:
  - Non-source areas (base wide, outside of source areas).
  - Source areas (SA01 to SA08 and SA10).
- Shallow exposed soil (i.e. 0 to 0.5 m bgl, no hardstand cover):
  - Non-source areas (base wide, outside of source areas).
  - Source areas (SA01 to SA08 and SA10).

Soil samples which are in drainage lines have been removed, as these locations are unrepresentative of broad site conditions. Drainage line samples have been separately considered in **Section 3.4.8** (where collocated with a surface water sample) or otherwise have not been separately subject to exposure-based estimates given their relatively limited lateral extents.

Comparison of representative concentrations has been made in **Table 3.7**. Source area references are provided in **Table 2.2**.

Table 3.7 Summary of available soil PFAS data (mg/kg)

Location	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2]	EPC	Basis	D[2]	EPC	Basis	D[2]	EPC	Basis
Direct (Reptiles)		-[3]			-			0.005		
Direct (Exc. Reptiles)		-[3]			1			10		
Indirect (all)		-[3]			0.003			0.003		
All depths										
Non-source areas	194	127	0.13	95% UCL	117	0.098	95% UCL	16	0.015	95% UCL
SA01 (former FTA)	156	142	0.22	95% UCL	140	0.21	95% UCL	18	0.0059	95% UCL
SA02	118	107	0.87	95% UCL	105	0.76	95% UCL	19	0.008	95% UCL
SA03	37	2	0.01	Max	2	0.01	Max	0	-	-
SA04	51	47	-[4]	-[4]	41	26	95% UCL	24	0.21	95% UCL
SA05	47	46	1.2	95% UCL	44	0.98	95% UCL	7	0.39	Max
SA06	65	27	0.16	95% UCL	26	0.74[5]	95% UCL	6	0.73	Max
SA07	50	46	0.066	95% UCL	46	0.064	95% UCL	0	-	-
SA08	55	49	0.21	95% UCL	48	0.17	95% UCL	10	0.0065	95% UCL
SA10	10	3	0.13	Max	3	0.13	Max	0	-	-
Shallow exposed soil										

Location	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2]	EPC	Basis	D[2]	EPC	Basis	D[2]	EPC	Basis
Non-source areas	107	73	0.083	95% UCL	78	0.063	95% UCL	8	0.023	Max
SA01 (former FTA)	77	74	0.11	95% UCL	74	0.11	95% UCL	2	0.0077	Max
SA02	64	55	0.69	95% UCL	55	0.55	95% UCL	9	0.076	Max
SA03	20	2	0.01	Max	2	0.01	Max	0	-	-
SA04	16	16	88	95% UCL	14	77	95% UCL	14	0.75	95% UCL
SA05	33	33	1.3	95% UCL	32	1.3	95% UCL	3	0.021	Max
SA06	8	6	24	Max	6	12	Max	2	0.73	Max
SA07	47	44	0.064	95% UCL	44	0.063	95% UCL	0	-	-
SA08	46	42	0.15	95% UCL	41	0.14	95% UCL	6	0.011	Max
SA10	9	3	0.13	Max	3	0.13	Max	0	-	-

[1] Number of primary samples.

[2] Number of primary detections.

[3] No criteria for constituent grouping.

[4] Estimated 95% UCL exceeds maximum result, indication that critical assumptions (e.g. randomised sampling) are invalid.

[5] The estimated 95% UCL for PFOS (only) is higher than for PFOS+PFHxS. This is attributable to the dataset histogram for PFOS+PFHxS mapping to a log-normal distribution with applicable confidence and the dataset histogram for PFOS only exhibiting no discernible distribution. Undiscernible dataset distributions cause wider confidence intervals in UCL estimates.

By review of **Table 3.7**, the following key observations have been made:

- The EPCs for PFOS + PFHxS:
  - Have no applicable ecological criterion.
  - Are predominantly comparable to the associated EPCs for PFOS.
- The EPCs for PFOS:
  - Exceeded the ecological indirect criterion in all areas of the site.
  - Exceeded the ecological direct exposure criterion in SA04 to SA06 in accessible soil and in SA04 across all soil depths.
- The EPCs for PFOA:
  - Exceeded the ecological indirect criterion and the reptile screening criterion in accessible soil and all soil depths at all source areas assessed.
  - Did not exceed the direct exposure criterion (for non-reptiles) in any areas of the site.

HEPA (2026) states that "*For intensively developed sites with no secondary consumers and minimal potential for indirect ecological exposure, a criterion of up to 0.14mg/kg PFOS may be appropriate*". It is considered that this criterion could potentially be applied to areas which do not present sufficient areal extent of accessible soil to warrant assessment for bioaccumulation risks. This would be limited to areas of extensive concrete covering/pavement, or areas which represent a small portion of the site. Such areas have not been separately assessed.

JBS&G notes that several source areas exhibit concentrations of PFOS within accessible soil which are considerably above the bioaccumulation (indirect) criteria (e.g. up to 20 000 times greater than the criterion in SA04). Further consideration of the potential for SA04 to SA06 to pose a risk to ecological receptors is provided in **Section 7.2**.

The relative magnitudes of PFOS exceedances (up to 20 000 times greater than the criterion) are notably higher than PFOA exceedances (250 times the criterion) in soil, indicating that PFOS (which has been conservatively assessed as PFOS+PFHxS in this risk assessment) represents the risk driving contaminant in soil. Further assessment of potential soil-attributable risks has been undertaken in this detailed ERA.

3.4.5 Groundwater

The groundwater analytical dataset has been compared against tier 1 criteria presented in the HEPA (2026). Groundwater analytical results have been separated based on the screened aquifer and compared against criteria adopted for the purpose of identifying whether groundwater may represent a source of PFAS contamination to receiving surface water environments in **Table 3.8**.

On- and off-base groundwater data has been distinguished into the following areas:

- On-base: SA01 to SA10, as shown on **Figure 6A** to **Figure 6C**, consistent with the source areas discussed in **Section 4.2**.
- Non-source area groundwater wells.
- Off-base areas as limited to the area to the east of SA01.

Each well assigned to a source area based on a lateral intersection with the extent of the source areas shown on **Figure 3**. Wells which are grouped as part of the 'on-base' wells may intersect groundwater plumes migrating from known source areas.

Table 3.8 Summary of available groundwater PFAS data (µg/L)

Location	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2,3]	Min	Max	D[2]	Min	Max	D[2]	Min	Max
95% spp. DGV		-[4]			0.9			220		
99% spp. DGV		-[4]			0.02			19		
Biota screening threshold		-[4]			0.0005			-[4]		
On-base										
SA01 shallow	148	147	0.034	1400	147	0.021	554	142	0.002[5]	98
SA01 intermediate	56	22	0.02	163	50	<0.01	66.1	62	0.009[5]	17.9
SA01 deep	42	21	<0.01	66	17	<0.01	31	9	<0.01	2.6
SA02 shallow	15	14	0.17	740	15	0.01	500	12	0.004[5]	31
SA03 shallow	12	12	0.02	0.26	10	0.006[5]	0.09	3	<0.001	<0.01
SA03 shallow (basalt)	5	5	0.025	0.08	5	0.01	0.05	2	<0.001	<0.01
SA04 shallow	10	10	6.17	1260	10	1.3	960	10	0.07	24
SA04 shallow (basalt)	2	2	38.6	363	2	29	264	2	0.52	5.98
SA05 shallow	3	3	51.4	68.7	3	6.1	9.7	3	1.43	2.3
SA05 shallow (basalt)	4	4	0.06	2.18	4	0.02	0.36	3	0.006[5]	0.047
SA06 shallow	20	20	0.3	107	20	0.08	86	19	<0.01	4.5
SA06 shallow (basalt)	5	5	0.07	3.9	5	0.04	2.45	4	0.004	0.09
SA07 shallow	3	3	0.72	8.4	3	0.22	3.7	3	<0.01	0.11
SA07 shallow (basalt)	3	3	1.97	3.43	3	0.97	1.72	3	0.066	0.09
SA08 shallow	20	16[6]	0.03	4.3	19	<0.01	2.07	9	0.002[5]	0.13
SA09	3	3	0.121	0.57	3	0.07	0.38	2	0.002[5]	0.02
SA10 shallow	3	2[6]	3.26	19.9	3	0.13	14	3	0.04	0.3

Location	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2,3]	Min	Max	D[2]	Min	Max	D[2]	Min	Max
On-base shallow	114	102[6]	<0.001	1537	110	<0.001	178	82	<0.001	500
On-base intermediate	6	6	9.51	14.7	6	0.14	0.17	6	0.2	0.45
On-base deep	5	1	<0.01	14.7	1	<0.01	0.17	1	<0.01	0.23
Off-base										
Off-base shallow	34	34	18.2	370	34	7.86	200	34	0.02	16.6

[1] Number of primary samples.

[2] Number of primary detections.

[3] Not all samples for which PFOS and PFHxS data exist have separately reported PFOS+PFHxS.

[4] No criteria adopted.

[5] The laboratory LOR was greater than the minimum concentration due to differing detection levels completed. JBS&G have adopted the lowest reported concentration where this has occurred in lieu of the LOR value.

[6] PFOS + PFHxS data was not provided for some samples.

By review of **Table 3.8**, the following key observations have been made:

- The maximum concentration of PFOS:
  - Exceeded the 99% spp. DGV in each area and each aquifer investigated.
  - Exceeded the 95% spp. DGV in each area and each aquifer investigated except for: SA03 shallow aquifer and SA08 intermediate aquifer.
- The maximum concentration of PFOA exceeded the 99% spp. DGV in the shallow aquifer only (SA01, SA02, SA04 and on-base other).

Elevated concentrations observed outside of source areas are typically closely downgradient of the identified source areas. The maximum concentrations of PFOS+PFHxS, PFOS and PFOA were notably higher in the groundwater than in Port Phillip Bay or RAAF Lake, however the groundwater most proximal to RAAF Lake was observed to contain lower concentrations than have been previously identified in the surface water for RAAF Lake.

3.4.6 Porewater

HEPA (2026) does not provide porewater criteria for PFAS compounds and no alternative porewater criteria have been adopted. Porewater data have been collected from the Port Phillip Bay foreshore over three sampling rounds (2020, 2024 and 2025). The porewater was collected via lysimeters (i.e. *in-situ*) or via centrifugation of sediment (*ex-situ*). The porewater data exhibit a range of concentrations which are notably different between sampling rounds.

The concentration ranges in the porewater have been compared between the shallow aquifer groundwater proximal to Port Phillip Bay and the surface water concentrations observed in the bay in **Table 3.9**. Reference has been made to groundwater wells on the periphery of the base which have been installed into the shallow aquifer as it is considered that this groundwater most likely represents the groundwater which may be discharging into Port Phillip Bay.

Table 3.9 Groundwater, porewater and surface water PFOS+PFHxS data comparison (µg/L)

Area	Date range	Groundwater	Porewater (*in-situ extraction*)	Porewater (*ex-situ extraction*)	Surface water
Foreshore excluding former FTA	**All data**	**0.08-44**[1]	**0.44-2.43**	**0.0004-0.0031**	**0.0043-0.101**[9]
	2018-2021	0.25-44	-	-	-
	2023-2024	0.23-34	0.62-2.43[3]	-	0.0043-0.072
	2025	0.08-35	0.44-0.84[4]	0.0004-0.0031[6]	0.0074-0.101
Former FTA	**All data**	**0.84-750**[2]	**0.066-0.466**	**0.001-177**	**0.027-0.146**[10]
	2018-2021	5.6-750	-	0.2-177[7]	-
	2023-2024	12-175	0.066-0.466[5]	-	0.047-0.085
	2025	0.84-218	-	0.001-0.051[8]	0.027-0.146

[1] Results from wells: MW034, MW051, MW109, MW020, MW049, MW052, MW105, MW107 and MW112.

[2] Results from wells: MW154, MW139, MW150, MW047, MW122, MW142, MW141

[3] Results from samples: SL001 to SL006

[4] Results from samples: PW139 and PW140

[5] Results from samples: SL007 to SL010

[6] Results from samples: PW114 to PW119

[7] Results from samples: PW100 to PW113

[8] Results from samples: PW120 to PW124

[9] Results from samples: SW266 to SW271

[10] Results from samples: SW272 to SW725

It can be observed in the available data that the concentrations reported in groundwater were consistently higher than the concentrations reported in porewater and surface water. The porewater data exhibits variability which is not readily explainable based on environmental dynamics anticipated to occur at the site.

Historical porewater data was collected by extraction from sediment samples as reported in *Defence Regional Contamination Investigation Program: Stage 5 Monitoring, RAAF Base Point Cook (0932)* (AECOM 2020). JBS&G implemented two primary sampling methods (soil lysimeter vacuum extraction (2024) and centrifugal extraction of porewater from sediment samples (2025)) as well as two methodological check samples (PW139 and PW140, comprising direct sampling of water infiltrating into open test pits) collected during the 2025 sampling round.

JBS&G anticipates that concentrations of porewater within the foreshore are likely to be between the groundwater concentration (as the source of PFAS) and the surface water concentration (as the receiving environment). PFAS concentrations are further anticipated to decrease from the source areas to the foreshore, with concentrations within the shallow sediment of the intertidal area likely to reflect the surface water of Port Phillip Bay. On this basis it is considered that the historical *ex-situ* extraction-based data for the former FTA (0.2 to 177 µg/L) and the *in-situ* direct infiltration samples collected from the balance of the site (0.44 to 0.84 µg/L) are likely most representative of porewater concentrations. The soil lysimeter data does not align with anticipated groundwater concentration gradient (i.e. higher concentrations observed in the southwest and central portions of the bay in porewater which is the opposite of what is observed in groundwater).

It is considered likely that the true representative porewater concentrations in the foreshore area are higher than observed surface water concentration in Port Phillip Bay inshore, with the most representative data considered likely to range from 0.2 to 177 µg/L proximal to the former FTA (SA01) and 0.44 to 0.84 µg/L across

the rest of the foreshore. These ranges of concentration are above the adopted surface water tier 1 criterion (0.9 µg/L).

The representative concentrations and distribution of PFAS in porewater remains a data gap as of the preparation of this detailed ERA, however it is not considered that this data gap precludes an assessment of risk to ecological receptors.

3.4.7 Surface water

The surface water analytical dataset has been compared against tier 1 criteria presented in the HEPA (2026) and ANZG (2026). Surface water analytical results have been compared against tier 1 criteria to evaluate the potential for surface water to represent a risk to aquatic species (vegetation, invertebrates and vertebrates) as differentiated by AOI, and consistent with the ERS (Victorian Government 2021) guidance (discussed in **Section 2.4**).

Analytical data from both aquatic exposure environments have been compared against the 99% spp. DGV for both freshwater and marine environments (to screen potential bioaccumulation risks to aquatic species) and the 95% spp. DGV for marine environments (to screen risks to aquatic species in the receiving water bodies). Consideration was further given to the biota screening threshold published in ANZG (2026) for PFOS to screen for potential bioaccumulation risks to air breathing animals.

Table 3.10 Summary of available surface water PFAS data (µg/L)

Location	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2]	EPC	Basis	D[2]	EPC	Basis	D[2]	EPC	Basis
95% spp. DGV		-[3]			0.9			220		
99% spp. DGV		-[3]			0.02			19		
Biota screening threshold		-[3]			0.0005			-[3]		
Aquatic exposure environments										
RAAF Lake	20	20	233[4]	95% UCL	20	86	95% UCL	20	6.2	95% UCL
Port Phillip Bay – inshore	22	22	0.057	95% UCL	22	0.035	95% UCL	22	0.0034	95% UCL
On-base drainage lines										
On-base drainage lines	73	69	440[4]	95% UCL	69	14	95% UCL	45	5.3	95% UCL

[1] Number of primary samples.

[2] Number of primary detections.

[3] No criteria for constituent grouping.

[4] The 95% UCL estimate (233 µg/L) is considerably higher than the average concentration (84.86 µg/L) indicating that there is a high degree of uncertainty in the estimate (e.g. RAAF Lake and on-base drainage line mean PFOS+PFHxS concentrations ~85 µg/L and 15 µg/L respectively). This is typical of estimates undertaken on multi-modal data for which the assumptions of randomised sampling and relative temporal/spatial invariability are potentially invalid.

It can be observed that the concentration of PFOS exceeds the adopted 99% spp. DGV in RAAF Lake and Port Phillip Bay. The concentration of PFOS additionally exceeded the 95% spp. DGV in RAAF Lake, indicating a potential for direct risks to aquatic biota. Further assessment of potential surface water-attributable risks has been undertaken in this detailed ERA.

Whilst concentrations exceed the adopted PFOS criteria for on-based drainage lines, the drainage lines are not considered to represent an aquatic AOI. The ERS further does not apply to man-made drainage lines. The comparison to tier 1 screening levels is provided for context and to inform the assessment of potential sources of impact to the AOI.

3.4.8 Sediment

HEPA (2026) does not provide sediment criteria for PFAS compounds and no alternative sediment criteria have been adopted. A summary is provided of estimated EPCs for sediment in AOI in **Table 3.9**, to inform the CSM (i.e. which areas should be expected to have higher PFAS concentrations in aquatic biota) and exposure assessment.

AECOM (2022) adopted sediment criteria published in *Chronic effects and thresholds for estuarine and marine benthic organism exposure to perfluorooctane sulfonic acid (PFOS)-contaminated sediments: Influence of organic carbon and exposure routes* (Simpson *et al.* 2021) developed to protect organisms potentially exposed to benthic PFAS. JBS&G notes that the HEPA (2026) did not adopt these criteria and they have not been adopted herein. The criteria require nomination of all sediment concentrations based on collocated organic carbon measurements, which are not available for all data.

Table 3.11 Summary of available sediment PFAS data (mg/kg)

Type	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2]	EPC	Basis	D[2]	EPC	Basis	D[2]	EPC	Basis
Aquatic exposure environments										
RAAF Lake	28	28	4.2	95% UCL	28	3.0	95% UCL	25	0.063	95% UCL
Port Phillip Bay foreshore	22	20	0.018	95% UCL	20	0.0088	95% UCL	0	-	-
Port Phillip Bay inshore	26	23	0.016	95% UCL	23	0.015	95% UCL	7	0.0006	Max
On-base drainage lines										
Drainage lines (all)	24	17	0.318	95% UCL	17	0.27	95% UCL	4	0.026	Max

[1] Number of primary samples

[2] Number of primary detections

Sediment analytical results have been incorporated into the detailed ERA estimates for all water bodies where a potential risk was identified from other either surface water (**Section 3.4.7**) or biota (**Section 3.4.6**).

3.4.9 Biota

The biota analytical dataset has been compared against tier 1 screening criteria presented in the HEPA (2026) in **Table 3.12**. All biota PFAS concentration measurements were made on the basis of wet-weight concentrations, as consistent with the BGVs. The tier 1 criteria comprise BGVs which were developed to assess whether biota represents a potential risk to avian and mammalian receptors if consumed as a food source. The biota dataset in this ERA is limited to aquatic species and has been differentiated into food groups for the purpose of the screening-based assessment, as consistent with the approach recommended in SERDP (2020).

In undertaking this review, it is noted that aquatic biota samples were not able to be collected from RAAF Lake as part of recent investigation works. This reflects the absence of aquatic biota from this AOI at the time of sampling.

Table 3.12 Summary of available aquatic biota PFAS data (mg/kg)

Location / type	N[1]	PFOS + PFHxS			PFOS			PFOA		
		D[2]	EPC	Basis	D[2]	EPC	Basis	D[2]	EPC	Basis
Avian BGV			0.0082			0.0082			0.0024	
Mammalian BGV			0.0031			0.0031			0.0028	
Port Phillip Bay foreshore										
Aquatic vegetation	20	11	0.0026	95% UCL	11	0.0026	95% UCL	1	0.0004	Max
Benthic invertebrate	21	16	0.082	95% UCL	16	0.082	95% UCL	8	0.0051	Max
Port Phillip Bay inshore										
Aquatic vegetation	20	13	0.010	95% UCL	13	0.010	95% UCL	3	0.001	Max
Benthic invertebrate	41	34	0.012	95% UCL	34	0.012	95% UCL	5	0.0022	Max
Pelagic invertebrate	5	2	0.023	Max	2	0.023	Max	1	0.0014	Max
Predator fish (fillet)[4]	6	6	0.13	Max	6	0.13	Max	1	0.0007	Max
Prey fish	29	27	0.086	95% UCL	27	0.0222	95% UCL	3	0.0093	Max

[1] Number of primary samples

[2] Number of primary detections

[3] No criteria for constituent grouping.

[4] Predator fish samples are limited to fillets only. A representative whole-body concentration has been estimated in **Section 7.3.1** using a conversion factor to ensure that the assessment is conservative. Further discussion on data representativeness is provided in **Section 3.5.2**.

By review of **Table 3.12**, the following observations are made:

- The EPC for PFOS + PFHxS exceeded the avian and mammalian BGV in each biota dataset, with the exception aquatic vegetation located in the foreshore.
- The EPC for PFOA exceeded the mammalian and avian BGV in the foreshore benthic invertebrates and inshore prey fish datasets only, with the magnitude of the exceedance significantly lower than the exceedances for PFOS (i.e. PFOS is clearly the risk driver).

JBS&G notes that no Australian Government criteria is available to assess ecological receptor risks from consumption of impacted biota to groups other than mammals and birds.

3.4.10 Identification of risk driving contaminant of concern

By review of the abiotic and biotic environmental datasets, with the exception of RAAF Lake abiotic media, it can be observed that the estimated EPCs for PFAS (almost entirely related to PFOS) exceed the adopted tier 1 screening criteria for various constituents, media and AOI.

JBS&G has adopted PFOS and PFHxS as COPCs for detailed risk assessment in all aquatic exposure media (i.e. surface water, sediment and biota) in the subsequent sections of this report. The assessment has been undertaken based on PFOS+PFHxS and is consistent with the biota BGV presented in the HEPA (2026). The adoption of PFOS+PFHxS is based on the following rationale:

- PFOS + PFHxS (or otherwise PFOS individually) was identified to exceed the adopted tier 1 screening criteria in soil, surface water, groundwater and biota.
- PFOA was identified to exceed the adopted tier 1 screening criteria in soil, groundwater and biota, however, the magnitude of exceedances were considerably lower than for PFOS (or PFOS+PFHxS) in each dataset.

- PFOS and PFHxS have been assessed as PFOS+PFHxS. This is consistent with HEPA (2026) approach to development of BGVs, whereby the toxicity of PFHxS is assumed to be equivalent to PFOS[11]. It can be observed that PFOS comprises the majority of the detected PFAS in most samples by weight, however the concentrations of PFHxS frequently contribute a meaningful proportion of the detected PFOS+PFHxS and are accordingly relevant to the risk estimates.
- Comparison of the magnitude of exceedances of BGVs to the magnitude of exceedance of surface water in Port Phillip Bay indicates that most potential risks will be attributable to consumption of aquatic biota. Notwithstanding, the assessment has considered the contribution to the risk profile of other media (including sediment, porewater and surface water). Porewater contribution has been considered on the basis of measurements of sediment PFAS concentrations, which effectively represent total PFAS present in both the sorbed and dissolved phase of sediment samples.
- Consideration has been given to the potential for terrestrial biota exposure to higher order species on the basis of the bioaccumulation-based soil criteria exceedance, noting that terrestrial biota data are not available.

3.5 Investigation adequacy

3.5.1 General

JBS&G has conducted a review of the available data in consideration of the typical requirements of a detailed ERA. The review has been undertaken with due regard given to the potential risks identified by the tier 1 screening process documented in the preceding sections and the inherent uncertainties of scientific investigations.

3.5.2 Data representativeness

Previous investigations have been relied upon to inform this detailed ERA. The investigations conducted prior to JBS&G's engagement were not exclusively specifically focused on PFAS, but provided data which identified and characterised potential PFAS contamination sources within the base. The available data relate primarily to soil, surface water, sediment and groundwater within the extent of the base.

Additional investigations have been completed by JBS&G in accordance with JBS&G (2024). The additional data collection was designed to infill material data gaps relevant to specific environmental media within the AOI, as identified in **Section 3.1.5**. Whilst the works were undertaken in general accordance with JBS&G (2024), not all sample types were able to be collected from all water bodies, which affects interpretation of the data for the intended purposes.

Sampling programs carry an inherent uncertainty as attributable to sample media spatial and temporal variations, as well as the process of simple categorisation of biota datasets to allow for meaningful estimates of exposure. Samples of biotic media are highly variable, which reflects a range of factors including individual sample species, maturity, sex, foraging/predating behaviours, opportunities, etc. This variance has been considered when estimating EPCs. The data review process minimised the potential to underestimate risks by adoption of conservative statistical metrics in estimating EPCs (e.g. 95% UCL or maximum). The effect on screening and overall risk estimates of adopting conservative statistical metrics has been assessed in **Section 10**.

One of the primary factors which affects EPCs uncertainties is the number of observations available which are available. For all media, the minimum sample number adopted to provide a 95% UCL was 10 samples. Review of the available datasets (**Table 3.7** to **Table 3.12**) indicates that most media sub-sets had sufficient samples

[11]HEPA (2026) , text below Table 7 "*This has been adapted to allow for uncertainties and potential similar properties and toxicities of PFHxS with PFOS*".

to obtain a 95% UCL estimate in most AOI. Where a 95% UCL could not be derived, maximum concentrations have been adopted as EPCs as a conservative measure.

The available data are considered adequate to identify and characterise PFAS contamination for the purposes assessing potential exposures for the following pathways and AOI:

- Assessment of potential direct contact-based exposures to terrestrial soil.
- Assessment of potential indirect (bioaccumulation) based exposures to terrestrial biota on the basis of soil concentrations and indirect adjusted soil-screening criteria.
- Assessment of potential direct contact-based exposures to sediment and surface water within Port Phillip Bay (both the foreshore and inshore).
- Assessment of potential food-web based exposures to aquatic biota in Port Phillip Bay.
- Preliminary screening level assessments for direct contact-based exposures in RAAF Lake.

Porewater data has not been adopted to assess exposures to benthic or other organisms which may be exposed through direct contact with sediment. Concentrations of PFAS as measured in sediment include both sorbed and dissolved phase PFAS concentrations and accordingly any exposures estimated based on sediment direct contact account for the potential contribution of PFAS present in porewater. Consideration has been given to the uncertainty of benthic organism exposures in **Section 10.5.1** and the likely extent of additional risk which would be attributable to incidental intake of porewater in **Section 10.5.2**.

Whilst sufficient data is available to inform risk estimates within Port Phillip Bay, the following data limitations have been identified:

- **Limitations on adult predatory fish data:**
    - The available adult predatory fish samples comprise six primary samples of flounder only (i.e. one species sampled) collected from the May 2025 sampling round. As such, the maximum concentration was required to be adopted as consistent with the statistical analytical approach. For datasets with less than ten individual sample results, an assessment of the dataset distribution cannot be undertaken which limits the confidence in the potential dataset spread. Further, as the results relate to concentrations of fillets, a conversion is required to be made to estimate the whole body fish tissue concentrations, as relevant to ecological receptor risks, which has been undertaken and incorporated into the adopted aquatic EPCs (**Table 7.2**). Notwithstanding, the available data are considered adequate to inform food-web based risk estimates.
    - The predatory fish analysis focused on adult flounder which the specialist ecological consultant advised was the most likely to exhibit the highest site fidelity amongst the available species. Accordingly, the samples provide an indication of the extent of bioaccumulation which may occur within close proximity to the base and are inferred to be less affected by confounding factors than alternative species.
    - The predatory fish data were collected over a single sampling event and represent the conditions encountered at the time of sampling. Assessments of potential seasonality or temporal influences is not able to be undertaken on this basis.
- **Limited pelagic invertebrates**: Whilst multiple attempts to sample pelagic invertebrates were made, the dataset is limited to five primary samples comprising two species (jellyfish and a cephalopod species). Similar to adult predatory fish, the maximum concentration was required to be adopted as consistent with the statistical analytical approach. It is not currently clear whether there is a substantial abundance of pelagic invertebrates within the relevant portions of Port Phillip Bay, or of the Elgin sampling events are actually representative of typical conditions. It is considered that the available data are sufficient to provide a preliminary indication of pelagic invertebrate concentrations.

- **Limited individual species**: Aquatic biota datasets have been consolidated based on SERDP (2020) based groupings. There is the potential that individual species materially differ with regard to the potential for PFAS to accumulation and this may represent a materially different exposure risk to receptors which preferentially target specific species. Review of the data indicates that beach worms are potentially more affected by bioaccumulation than the other benthic invertebrates sampled in the foreshore. Obtaining scientifically defensible detailed dietary preferences for receptors of concern presents an ongoing challenge to ecological risk assessments in Australia, and it was considered inappropriate to further subcategorise benthic invertebrates to separately assess invertivores with a preference for non-annelid invertebrates. Preference was given to sampling a representative range of species as these species were assumed to represent typical exposure conditions.
- **Potentially unrepresentative porewater data**: Porewater samples were collected along the foreshore of Port Phillip Bay using two methodologies (soil lysimeter and centrifugation). The porewater sampling was intended to support the CSM with respect to PFAS attenuation between groundwater and surface water, as well as a conceptual explanation for differences in benthic invertebrate concentrations in specific areas along the inshore area. The results of the porewater analyses were generally inconsistent across recent and historical sampling rounds. The data have not been used to estimate risks to ecological receptors, with a preference given to assessment of exposure media within the foreshore area (sediment, benthic invertebrates and aquatic plants).
- **Absence of ROC sampling and analysis**: No sampling of avian, mammalian or reptilian ROC was undertaken as part of this risk assessment (e.g. birds of prey). Collecting samples of fauna (e.g. birds, mammals and reptiles) was considered unwarranted as the risk profile to predators is typically dominated by aquatic invertivores/piscivores and it is not clear that additional sampling of higher order species would result in materially different outcomes to the risk assessment.
- **Absence of terrestrial biota data:** No terrestrial plants or invertebrates were sampled as part of the historical investigation works. In the process of completing this assessment, it was determined that bioaccumulation and food-web modelling, as proposed to be undertaken in JBS&G (2024), would likely result in an overly conservative outcome due to the uncertainties inherent in the approach. An alternative approach was undertaken to estimate risks to terrestrial mammals and birds, as documented in **Section 6**, which relies upon simplified bioaccumulation modelling incorporated into national and international guidance documents. The assessment of terrestrial receptors has been undertaken based on the available soil data, making use of direct and indirect soil criteria.

Current national regulatory guidance does not provide for the use of bioaccumulation modelling to assess risks to aquatic water bodies in Australia and, as such, direct sampling was preferentially applied to aquatic species in support of the assessment. In relation to RAAF Lake, the following discussion is provided:

- **Practical impediments to sampling**: Multiple attempts were made to collect representative samples of both abiotic and biotic media from RAAF Lake. RAAF Lake presents challenges in relation to the collection of representative samples given its drying/wetting cycles and practical impediments to accessing areas other than the shore (e.g. shallow water precluding boat/canoe access and very soft substrate precluding safe access on foot).
- **Abiotic media sample biasing:** The available abiotic data within RAAF Lake is spatially biased to the accessible portions of the lake which are readily and frequently able to be sampled (i.e. surface water channels along the southwest and southeast lake periphery). These locations represent the entirety of the available surface water and sediment data set and are likely to contain the highest concentrations of PFAS due to:
    - Access limitations and variable extent of surface water, sample collection may have been opportunistic in relation to the placement of sample locations in accessible areas with water present. This may have resulted in the targeting of surface water which has been subject to evaporation-based concentration of PFAS (i.e. channels and isolated ponds).

- Historical sampling has been focused on locations which are proximal to or otherwise comprise drainage channels and discharge outlets from the base. These areas are anticipated to have the highest potential for PFAS impacts and are potentially unrepresentative of the broader lake.
- Of the available surface water sampling events, there is a considerable difference between 2018, 2020 and 2024 in relation to the range of PFAS concentrations observed. It is not currently clear whether the ranges of concentrations are the result of lateral sampling biases, the effects of the drying/wetting cycles or other conditions (e.g. effects of groundwater-surface water linkages and recent rainfall). The available data for RAAF Lake show a wider range with a higher concentration in the sampling round undertaken in 2024 than 2018 and 2020. The 2024 sampling round occurred during a period of apparent drying compared to 2018 and 2020 which occurred during a period that the lake was inundated. An assessment of the drying/wetting cycles has been made in **Section 4.3.2**.
- The lake is likely be used by receptors of concern during periods in which it is inundated. The process of surface water influx may have the effect of reducing concentrations of PFAS due to rainwater based dilution.

- **No aquatic biota PFAS data**: Whilst efforts were made to collect aquatic biota from RAAF Lake, sufficient sample mass was not able to be identified during either of the recent sampling rounds to facilitate laboratory analysis. It is not currently clear whether the absence of biota within RAAF Lake represented its lower abundance during the sampling events (i.e. during dry conditions), or its lower abundance more broadly. Ephemeral Australian wetland habitats are widely understood to become inundated with wetland birds during wetting cycles. It is considered likely that the presence of aquatic biota would be limited to benthic invertebrates in absence of any aquatic plants being identified during sampling, and the frequent drying cycles resulting in the lake being unsuitable to support fish. Notwithstanding, it is considered that sampling of aquatic biota (benthic invertebrates) using alternative sampling approaches and targeting a wetting cycle and analysis of samples for PFAS concentrations could be considered where risk estimates require to be further refined to inform management decision relating to RAAF Lake.

4. SPR linkage assessment

4.1 General

A detailed PFAS CSM for the base and surrounding area is presented JBS&G (2026b). A summary of elements of the CSMs relevant to this detailed ERA is presented in the following sections, categorised as follows:

- 'Sources and media' representing the environmental media to which receptors are exposed.
- 'PFAS transport' representing the mechanisms of migration via surface water and groundwater to the AOI.
- 'Exposure pathways' via which impacted environmental media causes an exposure of ecological receptors to PFAS.
- 'Receptors' of contamination, comprising the species and taxa potentially exposed to contamination.

4.2 Sources and exposure media

Based on previous reports, primary sources of PFAS contamination include historical AFFF use, storage and waste disposal within various areas of the base. For the purposes of this SPR linkage assessment, sources are identified as environmental exposure media which form part of a potentially complete source-pathway-receptor linkage based on the tier 1 screening process presented in **Section 3**.

The table below focuses upon PFOS+PFHxS based upon **Section 1.5** and **Section 3.4.10**. Where PFOS+PFHxS results are above tier 1 screening criteria and the pathway requires further assessment, the cell has been highlighted orange. Where the specific medium is not present in the AOI, the cells have not been highlighted.

Table 4.1 PFOS+PFHxS sources and media

AOI	Typical PFOS+PFHxS Concentration				
	Soil	Surface water	Sediment	Groundwater	Aquatic biota
On-base terrestrial areas	EPC > direct and indirect exposure criteria	No aquatic exposure environment.	No aquatic exposure environment.	Range of values > = tier 1 criteria	No aquatic exposure environment.
RAAF Lake	No terrestrial exposure environment	EPC > direct and bioaccumulation spp. DGVs.	No tier 1 criteria available but PFOS+PFHxS identified above detection limits	Range of values > = tier 1 criteria	EPC > = tier 1 criteria based on avian / mammalian diet
Port Phillip Bay[1]	No terrestrial exposure environment	EPC > bioaccumulation spp. DGV	No tier 1 criteria available but PFOS+PFHxS identified above detection limits	Range of values > =tier 1 criteria	EPC > = tier 1 criteria based on avian / mammalian diet

[1] As limited to the foreshore and intertidal areas proximal to the southern boundary of the base as described in **Table 2.3**.

4.3 PFAS transport

4.3.1 General

Groundwater and surface water are identified as the dominant transport and migration pathways for PFAS impacts at the base. The following section is provided to establish the migration pathways and linkages between base-attributable PFAS and the AOI, each of which is further discussed in the following sections.

Understanding the potential and/or known contaminant migration pathways will assist in evaluating potential remedial and/or management options to address potentially complete SPR linkages.

4.3.2 Surface water

4.3.2.1 Summary of data

The ultimate surface water receiving water bodies are identified as RAAF Lake and Port Phillip Bay. Surface water discharges occur from the site via stormwater drainage infrastructure. Representative concentrations of PFOS+PFHxS in surface water have been measured over numerous sampling rounds (**Appendix B**) as summarised following:

- **RAAF Lake** (available results range from 1.4 to 460 µg/L): Concentrations of PFOS+PFHxS in surface water have been monitored in RAAF Lake in 2018, 2020 and 2024. PFOS+PFHxS was detected in all samples of surface water taken from RAAF Lake. Concentrations were considerably higher in the sampling round undertaken in December 2024 (29.3 to 460 µg/L), compared with the 2018 and 2020 sampling rounds (1.4 to 27 µg/L and 24 to 41 µg/L, respectively).
- **Port Phillip Bay** (available results range from <0.001 to 0.26 µg/L): Concentrations of PFOS+PFHxS have been monitored in Port Phillip Bay in 2024 and 2025. PFOS+PFHxS was detected at all surface water sampling locations. Concentrations were notably higher closer to the SA01 (Former FTA) (SW272 to SW275, range 0.27 to 0.26 µg/L, mean of primary samples 0.072 µg/L) than at the rest of the sampling locations (SW266 to SW271, 0.004 µg/L, mean of primary samples 0.025 µg/L), indicating that the proximity to the source area and elevated discharge potential is measurably affecting surface water concentrations.
- **Onsite stormwater** (available results range from<0.01 and 72 µg/L)**:** concentrations of PFOS+PFHxS have been monitored in onsite drainage infrastructure in 2018, 2024 and 2025. PFOS+PFHxS was detected at each surface water sampling location within the base. Drainage lines are marked on **Figure 4** and concentrations measured at the discharge points from each drain discussed:
    - Area A, Area C and Area F discharge to RAAF Lake (SW285, SW286, SW216, SW290 and SW287): concentrations have ranged considerably between drains, ranging from <0.01 to 72 µg/L.
    - For Area B to Area E discharge to Port Phillip Bay (SW233/SW234, SW202/SW203, SW232 and SW213/SW214), concentrations have ranged from 0.03 to 20 µg/L.

4.3.2.2 Port Phillip Bay

Surface water measured at the discharge points of various stormwater infrastructure indicate that stormwater discharges exhibit higher PFAS concentrations than Port Phillip Bay. It is considered that base surface water discharges are a potential source of PFAS to Port Phillip Bay, noting that a significant extent of mixing/dilution is expected to occur within a short distance of the discharge points. This can be observed by the difference in concentration ranges discharging from Area B to Area E[12] into Port Phillip Bay.

The groundwater and surface water interactions relating to Port Phillip Bay are dominated by tidal ebbs and flows. Groundwater and porewater discharge to the surface water environment of Port Phillip Bay during falling tides and are recharged by incoming surface water during rising tides.

4.3.2.3 RAAF Lake

RAAF Lake is a dynamic environment which is affected by drying and wetting cycles. A review of aerial imagery available on Nearmap for a total of 66 dates between 2009 and 2025 identified that RAAF Lake is typically

[12] Refer to **Table 2.2** for Area descriptions and features.

partially or fully inundated. However, several aerial images between 2024 and 2025 were observed to show the lake as entirely dry.

PFAS concentrations observed in RAAF Lake are noted to be generally higher than the concentrations measured in surface water along the surface water drainage lines and discharge points from Area A, Area C, Area E (relevant portions) and Area F. This is notable in consideration of the sampling event undertaken in December 2024 following a long period of relatively dry conditions. As discussed in **Section 3.1.5**, multiple attempts were made to sample RAAF Lake however dry conditions precluded sampling from being able to be undertaken. With respect to the PFAS sampling undertaken in RAAF Lake, available data from all three sampling events have been compared against the observed extent of water:

- A sampling event occurred on 13 December 2018, with the preceding and following aerial images (23 November 2018 and 22 January 2019) indicating that the lake was fully inundated. The range of PFOS+PFHxS concentrations in surface water was between 1.4 and 27 µg/L across four primary samples.
- A sampling event occurred on 9-10 November 2020, with the preceding and following aerial images (29 August and 12 December 2020) indicating that the lake was fully inundated. The range of PFOS+PFHxS concentrations in surface water was between 24 and 42 µg/L across six primary samples.
- A sampling event occurred on 2-3 December 2024, with the preceding and following aerial images (1 December 2024 and 1 February 2025) indicating that the lake was partially wet to dry (i.e. drying cycle). The range of PFOS+PFHxS concentrations in surface water was between 29 and 460 µg/L across ten primary samples.

It is considered that there are ongoing discharges of PFAS via surface water and potentially groundwater to the region of RAAF Lake though it is not known whether groundwater upwells to the surface and under what conditions this may occur (see **Section 4.3.3**). The magnitude of these discharges has not been formally assessed as of the completion of this report.

The summary above provides some evidence of a pattern of higher concentrations of PFAS during drier periods, potentially reflecting lower cumulative dilution by rainwater and/or concentration of impacts by evaporation. Whilst this indicates there is a potential relationship between the concentration ranges and the drying/wetting cycles, it should be noted that there are a range of potentially confounding factors which reduce the confidence in this assessment.

4.3.3 Groundwater

4.3.3.1 General

A substantial groundwater monitoring well network has been established across the base to assess PFAS and non-PFAS contamination sources. Senversa (2020) identifies four major aquifers beneath the site, as summarised in **Table 2.4**. The major aquifers are summarised as follows:

- The shallow fractured rock aquifer within fractured basalt is located across most of the base, with the exception of the former FTA and potentially RAAF Lake.
- The shallow sand aquifer is an unconfined aquifer within the Port Melbourne Sands Formation and is found south of RAAF Lake and along the foreshore of the base.
- The quaternary clayey sand aquifer (i.e. the intermediate aquifer) is a confined aquifer confirmed as being present across the western half of the former FTA only.
- The Brighton group aquifer (i.e. the deep aquifer) is found across the base.

Review of the available analytical data indicate that the range of PFAS concentrations within each of the aquifers is laterally variable, with the most elevated historical concentrations localised to the shallow aquifers present in SA01 (historical PFOS+PFHxS up to 1400 µg/L, shallow sand aquifer) and SA04 (historical PFOS+PFHxS up to 1260 µg/L, fractured rock aquifer).

4.3.3.2 Port Phillip Bay

Of the four main aquifers, two are understood to potentially discharge to Port Phillip Bay (shallow sand aquifer and shallow fractured rock aquifer), with potential seasonal discharges occurring to RAAF Lake. Groundwater flow across the base is generally from northwest to south-southeast. However, Senversa (2017) reports that within the former FTA, groundwater flow has been shown to change direction by 180 degrees and become dominated by tidal variations and evapotranspiration from trees on the northeast corner.

Groundwater discharge for the deeper intermediate and deep aquifers is currently unknown. *Geological Survey Report, No. 66 Preliminary Assessment of the groundwater Resources I the Port Phillip Region* (Leonard, 1979) describes groundwater discharge from the Brighton group aquifer (i.e. the deep aquifer) is offshore in Port Phillip Bay to the south of the extremity of basalt flows. As such, these deeper aquifers are expected to discharge to Port Phillip Bay some distance offshore where the potential for PFAS attenuation is significantly greater than the foreshore and inshore areas.

4.3.3.3 RAAF Lake

At the time of this detailed ERA, there is uncertainty in relation to the magnitude and extent of groundwater discharges to RAAF Lake. As discussed in Senversa (2017), it is considered likely that the drying and filling of RAAF Lake is likely to impact on discharge of groundwater from both shallow aquifers to the RAAF Lake. However, no assessment of the groundwater discharge regime and the potential interaction of groundwater with RAAF Lake has been completed as part of this detailed ERA.

The concentrations of PFAS in groundwater have not been measured near RAAF Lake, which precludes further detailed assessment of the linkage of groundwater from the broader base to the lake. Groundwater concentrations have been measured at four groundwater wells (MW035, MW039, MW056 and MW108) which are located between 50 and 200 m from the western or southern margin of the lake. The concentrations of PFOS+PFHxS in proximal wells has historically ranged between 0.06 and 0.57 µg/L along the western boundary (MW035, MW056 and MW108) and up to 37 µg/L in MW039.

Concentrations of PFOS+PFHxS in the lake (i.e. up to 460 µg/L) have been observed to be higher than the highest reported concentrations in surface water drainage infrastructure that discharges into the lake (up to 72 µg/L, see **Section 4.3.2**), as well as the proximal groundwater wells discussed above. It is considered that the concentrations observed in RAAF Lake reflect potentially localised conditions including possible leaching of impact from RAAF Lake sediments and/or concentration of surface water impacts by evaporation. It is considered likely that groundwater discharge into the lake (e.g. which may occur during prolonged periods of heavy rain) is not a primary source of PFAS contamination to the lake.

4.4 Receptors

Based on the information reviewed in the preceding sections, potentially complete SPR linkages have been identified in **Table 4.2**. The identified SPR linkages form the basis of the subsequent sections of this detailed ERA.

Table 4.2 Potentially complete SPR linkages

Area (source)	Pathway	Receptor	Assessment
Terrestrial (soil) – exposed shallow soil (i.e. 0 to 0.5 m bgl exposed soil)[1]	Direct contact	Terrestrial flora	Complete but concentrations are below tier 1 criteria – no further assessment required.
		Terrestrial fauna	Potentially complete
Terrestrial (soil) – deep soil (i.e. >0.5 m bgl soil)	Direct contact	Deep rooted terrestrial flora	Complete but concentrations are below tier 1 criteria – no further assessment required.
		Terrestrial fauna	Incomplete – pathway not present.
Terrestrial (biota)	Dietary consumption	Higher order terrestrial fauna	Potentially complete
Groundwater	Direct contact	Stygofauna and troglofauna	Potentially complete
Aquatic (surface water and sediment) – RAAF Lake	Direct contact	Terrestrial flora and fauna	Potentially complete
Aquatic (biota) – RAAF Lake	Dietary consumption	Higher order fauna	Potentially complete[2].
Aquatic (surface water and sediment) – Port Phillip Bay	Direct contact	Aquatic flora and fauna	Potentially complete
Aquatic (biota) – Port Phillip Bay	Dietary consumption	Higher order fauna	Potentially complete

[1] In assessing potentially complete SPR linkages, inaccessible soil present underneath or immediately adjacent to building footprints and/or hardstands (including SA04, SA05 and SA06) has been excluded from the assessment on the basis that it is not representative of broader site conditions and is relatively highly localised. Notwithstanding, it is concluded that soil in SA04 to SA06 represents a potentially elevated risk to ecological receptors.

[2] Whilst this pathway is identified as potentially complete, repeated attempts to identify and sample aquatic biota in RAAF Lake were unsuccessful due to the absence of aquatic biota able to be sampled. The presence of biota was identified but limited to an individual brine shrimp, which it is understood may form part of the dietary intake of some species within the Lake during periods of greater abundance. Consideration of this pathway is provided within the detailed ERA on a qualitative/semi-quantitative basis.

4.5 Problem statement

Previous investigations, as summarised in **Section 3**, have identified a number of uncertainties in relation to the potential for PFAS to pose risks to ecological receptors (principally higher order species). AECOM (2022) presented a preliminary assessment of risks for specific pathways (limited to abiotic media), which identified a potential for both direct contact and bioaccumulation-based risks to ecological receptors in some portions of the receiving environment (RAAF Lake and Port Phillip Bay). The former FTA ERA (AECOM 2022) was limited by the absence of biota analytical data and was constrained to the portion of the receiving environment and the base which was proximal to the former FTA.

A detailed ERA was required to undertake a wholistic assessment of the potential for risks to ecological receptors posed by PFAS in the environment. On the basis of additional data collection (e.g. aquatic biota), a tier 1 screening process and re-evaluation of the CSM, this detailed ERA has further assessed risks associated with the following exposure scenarios:

- Terrestrial exposure risks:
    - Terrestrial fauna to PFOS+PFHxS in shallow soil.
    - Terrestrial fauna to PFOS+PFHxS by consumption of impacted terrestrial biota.
- RAAF Lake exposure risks:
    - Aquatic biota and higher order species to PFOS+PFHxS in surface water and sediment.
    - Higher order species to PFOS+PFHxS in aquatic biota (qualitative assessment).
- Port Phillip Bay exposure risks:
    - Aquatic biota and higher order species to PFOS+PFHxS in surface water and sediment.
    - Higher order species to PFOS+PFHxS in aquatic biota.

A potentially complete exposure pathway has been identified between site groundwater, stygofauna and troglofauna. No readily accessible information has been identified as part of this detailed ERA which relates to the presence of stygofauna within the relevant aquifers. Stygofauna are most commonly found in fractured rock and/or intergranular spaces in well oxygenated coarse soil aquifers. This represents a common issue in assessing stygofauna risks and is a limitation on the state of the scientific literature and regulatory environment at the time of this report. Troglofauna are commonly confined to underground caves, voids and fissures above the water table. No such features have been reported in the AOI indicating a limited potential for the presence of troglofaunal. As such, stygofauna and troglofauna have not been considered as a receptor group of concern as part of this detailed ERA.

A potentially complete exposure pathway is identified in relation to benthic organisms within the foreshore and inshore area of Port Phillip Bay. Within the inshore, consideration is given to the surface water data to assess risks to benthic organisms. Within the foreshore, PFAS has been reported in sediment and porewater and no surface water data are available to support assessment of this portion of the site in the same manner as the inshore. Consideration has been given to use of the porewater data to characterise risks by comparison against the surface water tier 1 criteria, however, as noted in **Section 3.4.6**, the data are not considered to be reliable. As such the potential risks to posed to benthic organisms within the foreshore are considered, on a qualitative basis, to be potentially elevated by reference to the reported concentrations and the observation that they exceed the surface water based criteria. The confidence in the assessment is low, but it is not considered likely that additional assessment would meaningfully alter the assessment outcomes with respect to the approach to remediation and/or management of the site.

A potentially complete exposure pathway has been identified between site media and reptiles. Screening criteria available to assess for potential risks to reptiles are limited to an individual criterion which assesses risks on a soil-concentration to observed effect basis (PFOA only). There are currently no scientifically robust

or defensible dose-response TDIs for reptile exposure to PFAS (including PFOA), which represents a material data gap in the assessment of reptile exposure, as of the issue of this report. Consideration is given to the effects that assessment of reptiles would have on the outcomes as part of the sensitivity assessment (**Section 10.3.1**, **Section 10.5.4** and **Section 10.6.2**). As such, reptiles have not been considered as a receptor group of concern as part of this detailed ERA.

5. Receptor identification

5.1 General

Historical reports, including the AECOM (2022) and JBS&G (2026a and 2025), have documented reviews of online databases and observations made during biota sampling activities in relation to the presence of specific ecological receptors in AOI.

JBS&G has conducted a review historical documentation and undertaken supplementary ecological database searches as documented in the subsequent sections. The purpose of these reviews was to identify a) ROC which are representative of a broad range of receptors groups, and b) potential PFAS exposures which may occur in the AOI to inform the exposure assessment undertaken in **Section 7**.

A key outcome of this section is to focus the exposure assessment on the ROC which are likely to have the greatest potential for exposure, and to identify where a preliminary assessment of potential exposures indicates that progression to detailed assessment for specific receptors groups is not necessary. Information reviewed in this section is summarised in **Appendix C**, with key tables provided:

- **Table C1** – Accumulated data, all Species and sources.
- **Table C2** – Avian and mammalian species screening.

5.2 Former fire training area ecological risk assessment (AECOM, 2022)

AECOM (2022) documents a process of receptor identification which comprised searching of databases:

- The DoEE *EPBC Act Protected Matters Search Tool* (PMST) (DoEE 2021).
- Victorian Department of Environment Land Water and Planning (DELWP) *Victorian Biodiversity Atlas (VBA)* (DELWP 2021a).
- *Conserving Threatened Species, FFG Act 1998* (DELWP 2021b).
- BOM *National Atlas of Groundwater Dependent Ecosystems* (BOM 2021).
- Australian Treaty Series 1981 No. 6. China Australia Migratory Bird Agreement (CAMBA).
- Australian Treaty Series 1988 No 22. Japan Australia Migratory Bird Agreement (JAMBA).

The review found that each of the AOI were reported as providing potential habitat for a range of conservation significant species. AECOM (2022) references two ecological surveys undertaken in relation to the AOI which have not been made available for JBS&G's review. The summary provided within the AECOM (2022) in relation to the ecological surveys was limited to ecological habitat details and does not provide any summaries of receptor observations. JBS&G not having access to these two ecological surveys is considered to not be critical based upon the scope of work conducted in preparation of this detailed ERA.

JBS&G has reviewed the species list presented in AECOM (2022) for consideration as part of this detailed ERA. Given that identification of receptors was limited to desktop-based searches, JBS&G commissioned a field study (**Section 5.3**) and JBS&G has undertaken an additional ecological database search as part of preparing this detailed ERA (**Section 5.4**).

5.3 Elgin biota sampling and desktop review reports (2025)

JBS&G engaged a specialist ecological consultant (Elgin) to undertake an assessment of the ecological environment in support of this detailed ERA. Elgin prepared two post fieldwork reports as documented in JBS&G (2026a and 2025).

To identify species with ecological significance, Elgin undertook a desktop review which comprised searches of ecological databases, including the PMST, Victorian Biodiversity Atlas (VBA) and NatureKit, as well as review of the AECOM (2022). The database searches undertaken by Elgin were used to inform requirements of fishing permits obtained from Fisheries Victoria and are presented in the relevant reports.

Species identified by Elgin as part of the desktop review or as observed during biota sampling works are identified in **Table C1** of **Appendix C**. Key observations reported by Elgin are provided in **Table 3.2**. The observations made by Elgin have been considered in identifying species which may be present within the AOI, noting that observations made during the field work did not include any conservation significant species.

5.4 Ecological database searches

As part of preparing this detailed ERA, JBS&G has expanded the scope of desktop searches to obtain a single consolidated dataset relating to the presence of ecological species, including Listed Threatened Ecological Communities, Threatened Species and Migratory Species within the receptor identification area. The receptor identification area encompasses the base, including the PMAP Management Area and each AOI. The registers and outputs of online databases are provided in **Appendix C**, with a consolidated summary table provided as **Table C1**.

5.5 Receptors of concern

5.5.1 General

Numerous ecological receptors are likely to occur within the AOI from various feeding guilds. A systematic approach has been undertaken to identify and characterise exposure of representative or otherwise conservation significant species which are likely or known to occur within the assessment area. The approach adopted is based upon the discretisation of ecological receptors in guidelines, as summarised:

- ANZG (2018) separates aquatic species by broad taxa (e.g. amphibians, plants, invertebrates, fish), which has formed the basis of the review of aquatic receptors herein.
- HEPA (2026) presents tier 1 criteria for terrestrial higher order species based on classes: birds and mammals only. The guideline provides sub-groups upon which mammalian soil criteria were developed based on food preferences (e.g. herbivore), size (small to large) and infraclass (e.g. eutherian). Avian and mammalian species have been reviewed on a sub-group basis incorporating information relevant to food intakes and trophic level.
- Nagy KA (2001) present information relevant to class sub-groups (e.g. invertivore) for both birds and mammals. The information presented in Nagy KA (2001) has been considered in defining sub-groups for avian and mammalian species.

The ROC which are identified as part of a potentially complete SPR linkage (**Table 4.2**) with respect to this detailed ERA have been categorised into the following groups:

- Aquatic (lower order): amphibians, plants and invertebrates.
- Aquatic (higher order): fish.
- Terrestrial/aquatic (higher order): birds and mammals.

It has been assumed that lower order aquatic species adopt an exposure to PFAS by direct contact to impacted abiotic media only, and that higher order species (aquatic and terrestrial) adopt exposures to both abiotic and biotic (i.e. dietary) media. Each of these receptor groups is discussed in the subsequent sections.

5.5.2 Aquatic invertebrates, aquatic flora and fish

A review of **Table C1** indicates that a range of aquatic amphibians, invertebrates and flora are present throughout the AOI. The consolidated species list is summarised below:

- Seven species of aquatic plants were observed by Elgin in the Port Phillip Bay foreshore area, none of which were conservation significant.
- Six species of benthic invertebrates were observed by Elgin in the Port Phillip Bay foreshore and two species were observed in RAAF Lake. No observed species were identified as conservation significant.
- Two species of pelagic invertebrates were observed by Elgin in the Port Phillip Bay foreshore area. Neither species were identified as conservation significant.
- Eight species of fish were observed by Elgin in the Port Phillip Bay foreshore area. No observed species were identified as conservation significant.
- One species of fish (*blue warehou*) was identified as 'Conservation Dependent' under the EPBC Act.
- Three species of shark were identified in desktop searches, all of which are listed migratory species under the EPBC Act. One species (great white shark) is identified as Vulnerable under the EPBC Act.

Reference has been made to the availability of appropriate tier 1 screening criteria to evaluate potential risks to the identified receptor groups in **Section 3**. JBS&G notes that the HEPA (2026) criteria for aquatic ecosystems (90%, 95% and 99% spp. DGVs) have been developed based on toxicity studies conducted on amphibians, aquatic invertebrates, aquatic flora and fish, and then apply the spp. DGVs to all species to screen risks. This has the effect of potentially overestimating risks to specific taxonomic groups which are less sensitive to PFAS.

To further evaluate the significance of potential risks to aquatic species, the following sub-groups have been adopted for further assessment: invertebrates, amphibians, flora and fish. Aquatic species have been adopted for assessment as a taxonomic group rather than based on individual species.

5.5.3 Avian

A review of **Table C1** has identified a total of 279 avian species which are potentially present within the AOI. The review has focused on conservation significant birds consistent with general best practice. The consolidated species list is summarised below:

- 85 species are identified as conservation significant under the FFG Act or EPBC Act:
    - 39 species are identified as migratory birds under the EPBC Act (14 migratory marine birds, two migratory terrestrial birds and 23 migratory wetland birds).
    - 48 species are identified as conservation significant under the EPBC Act (6 Critically Endangered, 11 Endangered and 31 Vulnerable).
    - 39 species are identified as conservation significant under the FFG Act (13 Critically Endangered, ten Endangered and 16 Vulnerable).
- 229 species were observed in vicinity of the site on NatureKit of which eight were observed by Elgin as part of the ecological survey conducted (**Section 5.3**).

The receptors selected for the assessment of risks to avian species which utilise the aquatic areas of interest and the associated rationale is provided in **Table 5.3**.

Terrestrial avian species have not been screened for ROC selection. Selection of ROCs is undertaken for species which are subject to multi-pathway PFAS exposure assessments. In the absence of available terrestrial biota data, assessment of terrestrial bird risks has been made by comparison of soil analytical data to soil bioaccumulation-based criteria which were developed in HEPA (2026) to protect a range of terrestrial bird trophic levels/feeding guilds, as discussed in **Section 6.3**).

The number of avian species is notably higher than other receptor groups (i.e. in comparison to aquatic species and mammals) and avian species represent several distinct feeding guilds. This has been considered when identifying ROC.

Avian species which are listed as 'migratory' have been discretised into different groups given the significant difference between different categories of avian migration. In the Australian context, some species migrate across continents and have significantly higher dietary intake rates when nesting in the northern hemisphere. Some species across the AOI are only migratory at an interstate level (e.g. Victoria – New South Wales) and some at an international level (i.e. Australia – New Zealand). Some species have local migratory patterns determined by climatic conditions and are considered partially migratory, nomadic or dispersive. What is critical to understand for the purposes of a detailed ERA is whether avian species consume all or only part of their diet from a specific exposure area.

The identified species within each trophic level and feeding guild are presented in **Table 5.1** and **Table 5.2** as segregated into predominantly aquatic and terrestrial species for resident/non-listed migratory species (**Table 5.1**) and 'migratory' species under the EPBC Act (**Table 5.2**). Some species exhibit different behaviours at different life stages as well as between different individuals. The distinction that has been made in the table below represents a simplification which is intended to ensure that the species selection process is suitably conservative.

Table 5.1 Review of conservation significant resident/nomadic avian receptors

Primary Habitat	Trophic Level	Feeding Guild	Species
Aquatic	Primary consumer	Herbivore	No examples (black swan commonly to represent this feeding guild when preparing PFAS related ERAs in Australia).
Aquatic	Secondary consumer	Omnivore	Blue-billed duck.
Aquatic	Tertiary Consumer	Invertivore/ Omnivore	Australasian shoveler, musk duck.
Aquatic	Tertiary Consumer	Carnivore	Australasian bittern, Caspian tern, eastern great egret, little egret, plumed egret.
Aquatic	Quaternary consumer	Carnivore	Northern Buller's albatross, pacific albatross, osprey, shy albatross, white-bellied sea-eagle.

Table 5.2 Review of conservation significant migratory/partly migratory avian receptors

Primary Habitat	Trophic Level	Feeding Guild	Species
Aquatic	Secondary consumer	Omnivore	Sharp-tailed sandpiper.
Aquatic	Secondary consumer	Invertivore	Lesser sand plover, Pacific golden plover, yellow wagtail.
Aquatic	Tertiary consumer	Omnivore	Australian painted snipe, broad-billed sandpiper, broad-billed sandpiper, pectoral sandpiper, red-necked stint.
Aquatic	Tertiary consumer	Invertivore/ omnivore	Black-tailed godwit, curlew sandpiper, double-banded plover, Fork-tailed swift, long-toed stint, ruff.
Aquatic	Tertiary consumer	Invertivore	Bar-tailed godwit, common sandpiper, great knot, grey plover, grey-tailed tattler, Lewin's rail, little greenshank, marsh sandpiper, pin-tailed snipe, ruddy turnstone, Swinhoe's snipe, terek sandpiper, whimbrel, wood sandpiper, greater sand plover, large sand plover.
Aquatic	Tertiary consumer	Carnivore	Fairy prion (southern), fairy tern, little tern, sooty shearwater, Campbell albatross, Campbell black-browed albatross, common greenshank, greenshank, eastern curlew, far eastern curlew, Nunivak bar-tailed godwit, western Alaskan bar-tailed godwit.
Aquatic	Quaternary consumer	Carnivore	Black-browed albatross, Buller's albatross, pacific albatross, northern giant petrel, sooty albatross, southern giant-petrel, southern giant petrel, white-capped albatross, Indian yellow-nosed albatross, northern royal albatross, Salvin's albatross, southern royal albatross, wandering albatross.

Based on the outcomes of the tier 1 screening (**Section 3**), identification of potentially complete SPR linkages (**Table 4.2**), representative species have been selected from both aquatic and terrestrial birds. It is considered that the most highly exposed individuals are likely to be terrestrial invertivores (in terrestrial environments) and aquatic invertivores and piscivores (in aquatic environments).

It is anticipated that the most highly exposed species would by invertivores or piscivores which obtain a proportion of their diet from the AOI. The representative groups/guilds are summarised below:

- Aquatic primary herbivore (resident/nomadic only).
- Aquatic secondary or tertiary invertivore (resident/nomadic and migratory/partly migratory).
- Aquatic tertiary or quaternary carnivore (two resident/nomadic and one migratory/partly migratory).
- Aquatic quaternary carnivore (resident).

The potential for exposure of a given receptor is primarily driven through consumption of PFAS impacted food sources. The ratio of daily food ingestion to the bodyweight of a receptor is a key factor for exposure assessment (see **Section 7.3.2.3**). In addition to selecting receptors which consume a range of different food sources, to ensure conservatism in the assessment, receptors with higher food intake to bodyweight ratios have been selected. The approach summarised above is consistent with the approach in HEPA (2026), whereby the criteria developed to protect taxonomic groups (i.e. mammals) considers an upper estimate of the range of food intake to bodyweight ratios for all receptors within that taxonomic group.

Species which are representative of different feeding guilds have been selected by identifying the species with the highest food intake to bodyweight ratio of each of the trophic level/feeding guild. Food intake rates have been estimated by referring to *Food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds* (Nagy KA 2001). Each receptor has been assigned to one or more guilds (e.g. all birds, pelecaniformes, carnivorous birds) and the food intake equations which would result in the highest

estimated food intake rate for each of the birds were adopted. Further explanation of the process of estimating food intake to bodyweight ratios is provided in **Section 7.3.2.3**. This is a conservative assumption which is likely to overstate the extent of dietary exposure, however, this is an appropriately conservative simplification in the approach to account for the various uncertainties.

Table 5.3 Selected aquatic avian receptors of concern

Trophic Level	Feeding Guild	Migratory or Resident	Selected ROC	Rationale
Primary consumer	Herbivore	Resident	Black swan[1]	No conservation significant examples available, adopted black swan as a commonly observed non-significant species in buffer area.
Secondary or tertiary consumer	Invertivore	Resident	Australasian shoveler	Highest food intake to bodyweight ratio within class. All representatives in class primarily reside / forage within estuarine waters or wetlands. The shoveler is reported to occasionally occupy inshore waters.
Tertiary or quaternary consumer	Invertivore/ piscivore	Resident	Little egret	Highest food intake to bodyweight ratio in class.
Tertiary or quaternary consumer	Invertivore/ piscivore	Resident	Caspian tern	Primary habitat identified as coastal bays. Highest proportion of fish intake within class.
Quaternary consumer	Piscivore	Resident	Osprey	Majority of diet from fish. Highest food intake to bodyweight ratio in class.
Secondary or tertiary consumer	Invertivore	Migratory/partly migratory bird	Double-banded plover	Highest food intake to bodyweight ratio in class. Double-banded plover potentially occupies wetlands and intertidal areas.
Tertiary or quaternary consumer	Invertivore/ piscivore	Migratory/partly migratory bird	Little tern	Highest food intake to bodyweight ratio in class. Primarily piscivorous.

[1] The black swan was observed on the site by Elgin during biota sampling (**Table 3.2**). It is noted that no other avian species adopted were positively confirmed by Elgin during their works.

5.5.4 Mammals

A review of the ecological species database has identified a total of 17 species of mammal within the AOI. The following observations made:

- Six species were observed as reported on NatureKit. Of the species observed, none were identified as conservation significant.
- Four species are identified as migratory species (two whales, one dolphin and the grey-headed flying fox).
- Three species are identified as conservation significant under the EPBC Act (two Endangered and one Vulnerable).

Mammals are identified as key ROC given their abundance, conservation status and the potential for elevated exposure to PFAS through consumption of impacted biota. The species list has been reviewed to identify species with a distinct potential for exposure to PFAS at the site. This has been undertaken based on reviewing the trophic level and feeding guild of each of the species.

The identified species within each trophic level and feeding guild are presented in **Table 5.4**, as segregated into predominantly aquatic and terrestrial species.

Table 5.4 Review of mammalian receptors

Primary Habitat	Trophic Level	Feeding Guild	Species
Aquatic	Primary consumer	Herbivore	None identified.
Aquatic	Secondary consumer	Omnivore	None identified.
Aquatic	Secondary consumer	Carnivore	Humpback whale, pygmy right whale and southern right whale.
Aquatic	Tertiary to quaternary consumer	Carnivore	Dusky dolphin, common dolphin, short-beaked common dolphin, Indian Ocean bottlenose dolphin, spotted bottlenose dolphin, long-nosed fur-seal, New Zealand fur-seal.
Terrestrial	Primary consumer	Herbivore	European rabbit and grey-headed flying-fox.
Terrestrial	Secondary to tertiary consumer	Omnivore	House mouse.
Terrestrial	Secondary to tertiary consumer	Invertivore	Black rat and brown rat.
Terrestrial	Tertiary to quaternary consumer	Carnivore	Spot-tailed quoll, red fox and wild dog/dingo.

The review of mammalian species has indicated that the potential for conservation significant mammalian species which are frequently exposed to PFAS within the AOI is limited. The following species have not been considered further:

- Primarily oceanic migratory species (i.e. whales) as these species are not likely to be able to access any part of the AOI (including the shallow waters of Port Phillip Bay immediately adjacent to the base).
- Dolphins are considered the only aquatic mammalian receptors which may have significant exposure to PFAS within the AOI. However, dolphins have not been adopted for assessment on the basis that the amount of time that an individual dolphin would spend within the relevant portion of Port Phillip Bay adjacent to the base would be negligible (<1%) and the estimated PFAS intake would be considerably below the intakes dolphins receive from other sites (e.g. wastewater treatment plant discharges).
- Primarily terrestrial mammalian species have been excluded on the following basis:
    - The grey-headed flying-fox is not anticipated to obtain a significant portion it's diet from biota in the AOI. *National Recovery Plan for the Grey-headed Flying-fox Pteropus poliocephalus* (DEW, 2021) reports that the grey-headed flying-fox has an average daily foraging extent of 10.9 km in any given direction, equivalent to a foraging area of greater than >100 km^2. The large home range for this species compares to a relatively small site area which indicates that the potential for the base to represent a significant source of food on a long-term basis is limited. Further, DEW (2021) reports that the grey-headed flying-fox primarily consumes blossoms and fruit in canopy vegetation, which is not anticipated to be abundant within the terrestrial areas of the base. If this species was adopted for detailed assessment potential risks would be estimated to be substantively lower than for local omnivorous/invertivorous mammals.
    - The spot-tailed quoll is a terrestrial carnivore which has a very large home range. The NSW Office of Environment & Heritage (OEH) reports in *spotted-tailed quoll* – profile (OEH, 2020) that the spot-tailed quoll has a home range between 500 and 4000 hectares and they are primarily found at higher altitudes. The spot-tailed quoll is not anticipated to be present in the AOI.
    - The dingo, a species considered in HEPA (2026), has not been adopted on the basis that evidence of its presence was limited to an individual sighting of an unidentified canine in 1992.

- European rabbit and red fox are invasive species which are not identified as conservation significant. The European rabbit is an herbivore which is not expected to be significantly exposed to PFAS given its diet comprises terrestrial plants which exhibit a considerably lower potential to accumulate PFAS than other terrestrial biota.

JBS&G has considered that the house mouse, black and brown rat may have significant exposure to PFAS contamination. Representative species for more detailed assessment are limited to the house mouse and black rat, which have been assessed based on their trophic level/guild (i.e. small omnivorous and invertivorous secondary consumers).

5.6 Areas of interest and relevant receptors

Exposure of receptors to contamination is anticipated to occur as consistent with the use of the AOI by receptors. Primarily terrestrial birds and mammals are not expected to derive a significant exposure to aquatic areas and similarly birds and mammals which forage/predate in aquatic areas are not expected to derive a significant exposure from terrestrial areas.

This has been accounted for by:

- Adoption of different receptor groups for the assessment of terrestrial and aquatic exposure areas.
- Adoption of differential area use factors (AUF) for aquatic receptors in RAAF Lake and Port Phillip Bay (i.e. quaternary piscivores likely have negligible exposure to media in RAAF Lake in preference to Port Phillip Bay).

6. Adjusted indirect (bioaccumulation) soil-screening criteria

6.1 General

Concentrations of PFOS+PFHxS in soil have been found to exceed generic tier 1 investigation thresholds based on indirect (bioaccumulation) risks as summarised in **Section 3.4.4**. **Section 5.5** highlights the potential for unacceptable risks related to terrestrial species exposure to PFOS+PFHxS in soil and terrestrial biota. No empirical data are available relating to concentrations of PFOS+PFHxS in terrestrial biota which may be targeted for consumption. Whilst the indirect criteria presented following are provided on the basis of PFOS concentrations, ensuing risk estimates and the adjusted criteria are based on the arithmetic sum of PFOS+PFHxS assuming that the environmental and toxicological behaviour are similar. This has been undertaken to ensure that the risk estimates remain conservative. and is consistent with HEPA (2026).

To assess potential indirect (bioaccumulation) exposures to terrestrial mammals and birds, consideration has been given to the use of existing indirect (bioaccumulation) soil screening criteria documented in the HEPA (2026) and CCME (2021). The criteria have been adjusted to ensure that they are protective of the exposures likely to occur within the base, and adjustment considers the absence of highly sensitive species from the AOI.

This approach is considered preferable to undertaking a dietary exposure assessment as has been completed for avian species within the aquatic AOI. In absence of terrestrial biota PFOS+PFHxS concentration data, it is considered that exposure estimation would be overly reliant on theoretical calculations and the adoption of the soil screening criteria-based approach represents limitations of the available data in making the assessment. Notwithstanding, it is considered that this approach is an appropriate tool to make informed decision on the management/remediation of the base to address ecological risks.

6.2 Adjusted HEPA (2026) indirect soil screening criteria – mammalian species

The HEPA (2026) indirect soil screening criterion was developed to protect bioaccumulation related exposures to terrestrial mammals. The criterion assumes that a range of sensitive species obtain the entirety of their diet from food sources grown within the affected soil.

For sites which are intensively developed, and which represent a limited potential for the habitation, foraging or predation of mammalian species, the generic guideline value is overprotective. JBS&G notes that review of mammalian receptors (**Section 5.5.4**) has identified two representative mammalian receptor groups which potentially access the base, namely: the house mouse and the black and brown rat. JBS&G considers that the potential exposure of these species is likely to be consistent with the following receptors considered in HEPA (2026):

- Ash-grey mouse (small secondary consumer, omnivore), which is comparable to the house mouse.
- Swamp rat (medium sized secondary consumer, omnivore), which is comparable to the brown rat and black rat.

The HEPA (2026) estimates the concentration of PFOS in soil which would result in an estimated daily dosage of PFOS which would exceed the DTED for mammalian receptors (see **Section 3.2.3**), using an approach consistent with that documented in **Section 7.3.3** (i.e. incidental soil intake combined with ingestion of affected biota). The HEPA (2026) estimates values to protect receptors from potential bioaccumulation-based exposures as follows:

- Small secondary consumer, omnivore (ash-grey mouse): 0.031 mg/kg.
- Medium sized secondary consumer, omnivore (swamp rat): 0.661 mg/kg.

Accordingly, the most sensitive receptor is identified as the ash-grey mouse (representative of the house mouse on-base), with a criterion of 0.031 mg/kg PFOS in soil, which has been adopted to assess terrestrial mammalian indirect (bioaccumulation-based) exposure potential within the base (see **Section 9.3.2**). For the

purposes of this detailed ERA, it has been assumed that an individual house mouse may spend its entire life on the base and obtain its entire diet from terrestrial plants and invertebrates within the extent of the base (i.e. AUF = 1).

6.3 Adjusted CCME (2021) indirect soil screening criteria – avian species

HEPA (2026) does not provide a generic bioaccumulation-based soil criteria for the protection of terrestrial avian receptors. This represents a deviation from Version 2.0 of the PFAS NEMP (HEPA, 2020) in which CCME criteria were adopted in *lieu* of an Australian specific criterion being derived.

The criteria were developed using a methodology which is generally consistent with the criteria developed to protect mammals in HEPA (2026). It is noted that the assumptions relating to bioaccumulation and dietary proportions are less conservative than assumptions made in Version 3.1 of the PFAS NEMP (HEPA, 2026). This results in an overall higher screening criterion than would be developed for generic receptors using a consistent approach with Version 3.1 of the HEPA (2026), particularly for invertivores.

In addition to the two receptor groups presented in CCME (2021), consideration has been given to an obligate invertivore. An adjustment has been made to the criterion developed for the American robin based on an assumed 100% proportion of dietary intake comprising invertebrates as per the following equation:

$$SQG_{2I} = \frac{(DTED * 75\%)}{(IR_S + IR_{Inv} * BAF_{Inv})}$$

Where DTED is the daily effects threshold dose (0.386 mg/kg.bw/day)

75% represents the proportion of the DTED which is attributed to dietary intakes

IRs is the ingestion rate of soil (0.00059 mg/kg.bw/day)

IRinv is the bodyweight normalised ingestion rate of invertebrates, which has been assumed to be the entire food ingestion rate for the robin (0.015 food per day kg/day divided by 0.08 kg bodyweight)

BAFinv is the invertebrate bioaccumulation factor adopted by CCME (2021) (10.9 kg/kg).

For this risk assessment, JBS&G has considered the following criteria developed by CCME for avian species:

- Primary consumer, omnivore (rock dove): 6.2 mg/kg.
- Secondary consumer, omnivore (American robin): 0.33 mg/kg.
- Secondary consumer, invertivore (Adjusted American robin): 0.14 mg/kg.

Consideration was not given to terrestrial tertiary/quaternary carnivores given that these species would likely predate over areas considerably larger than the site, necessitating an application of an AUF to ensure that the calculations are not overly conservative. It is considered that the assessment of the secondary invertivores would be sufficiently protective of higher trophic level terrestrial avian species.

The effect on the risk estimates of alternative representative avian receptor selection discussed in **Section 10.5.1** and the effect which would result from adoption of the alternative toxicity end-point is discussed in **Section 10.6.1**.

7. Exposure assessment

7.1 General

Exposure assessments have been undertaken in the following sections which have considered the receptor groups identified as part of a potentially complete SPR linkage (**Table 4.2**) and the receptor identification process (**Section 5**). The approaches are summarised as follows:

- Terrestrial exposures:
  - Estimation of terrestrial EPCs (as limited to accessible soil, on a base-wide basis).
  - Review and adoption of terrestrial soil indirect criteria presented in HEPA (20206) which have been adjusted to assess representative mammalian taxa, considering the anticipated exposure characteristics relevant to the mammalian species likely to be present on the base.
  - Review and adoption of adjusted terrestrial soil indirect criteria to assess representative avian taxa, considering the anticipated exposure characteristics relevant to the avian species likely to be present on the base.
- Estimation of aquatic EPCs in RAAF Lake and Port Phillip Bay.
- For receptors subject to dietary uptake modelling (i.e. aquatic avian ROC in Port Phillip Bay):
  - Documenting the exposure parameters (e.g. bodyweight and food intake rates).
  - Estimating impacted media intake (e.g. food group specific ingestion rates).
  - Estimating bodyweight-normalised total daily dosages (TDDs) by summing doses attributable to each of the impacted media.

7.2 Terrestrial exposure assessment

HEPA (2026) provides generic criteria for the assessment of mammalian receptors in terrestrial environments based on potential bioaccumulation (indirect) effects of PFOS+PFHxS. The criteria were developed by back-calculating a concentration in soil which would result in an unacceptable risk to representative Australian mammalian species which consume biota affected by bioaccumulation of PFOS from soil.

In the absence of site-specific terrestrial biota data, JBS&G considers that the transfer factors adopted in HEPA (2026) form a suitable basis to estimate potential food-chain bioaccumulation risks to terrestrial receptors within the base. To evaluate potential risks to terrestrial receptors, a representative EPC is required to be estimated for shallow and accessible soil (i.e. ecologically active soil).

Section 3.4.4 presents EPCs representative of the accessible soil in each of the source areas within the base (excluding drainage lines). These estimates indicated that representative concentrations of PFOS+PFHxS in soil exceeded the applicable HEPA (2026) bioaccumulation criterion within and outside of source areas at the base. The EPCs estimated in **Section 3.4.4** are representative of relatively localised areas and vary by several orders of magnitude.

To evaluate the potential risk to terrestrial receptors, a representative EPC has been estimated by grouping the 'ecologically active' soil analytical dataset across the whole base (soil present in uncovered areas at less than 0.5 m depth). This dataset has been generated by consideration of all analytical results which relate to non-source areas as well as SA01 to SA03 and SA07 to SA10, excluding drainage lines/features.

SA04 to SA06 have been excluded from detailed assessment on the basis that the impacted soil occupies a highly localised area on the periphery of hardstand (SA04 and SA06) or otherwise adjacent to operational infrastructure (SA05), which is not readily able to be assigned a specific proportion of use by terrestrial receptors. JBS&G (2026b) will report considerably lower concentrations of PFAS in SA05 indicating that

historical data may not be representative of current accessible soil conditions, notwithstanding SA05 has been assessed on the basis of the entire available dataset in this detailed ERA. Conclusions in relation to the potential risks for SA04 to SA06 have been made on a qualitative basis as presented in **Section 9.3**. Potential ecological risks associated with terrestrial receptors in these areas have not been subject to detailed estimates given:

- There is an absence of terrestrial vegetation (other than grass).
- The exposed soil is limited to the periphery of hardstand slabs and a former fuel storage area, occupying a limited lateral extent within the broader base.
- The limited extent of exposed soil and absence of terrestrial vegetation constrains the potential for these areas to cause and exposure to high-order fauna.

The soil dataset has been statistically analysed in accordance with the procedure documented in **Section 3.4.2**, with the results of the assessment provided in **Appendix B**. The dataset comprises 388 distinct samples with a mean value of 0.1 mg/kg and a standard deviation of 0.32 mg/kg. The 95% UCL mean was estimated to be 0.127 mg/kg using Student's t UCL and Kaplan-Meier imputed statistical values for non-detects.

The soil dataset histogram is provided as **Plate 1**, which shows that the dataset includes a small number of values which are relatively high in concentration in comparison to the broader dataset. ProUCL 5.2 has reported that the dataset does not follow a discernible distribution, indicating that some key assumptions may not be satisfied in relation to non-biased and random sampling, which is consistent with the consideration of potentially multimodal data together (i.e. including various source areas with localised higher concentrations).

The adopted 95% UCL mean (0.127 mg/kg) is appropriate to estimate the EPC of datasets which do not follow a discernible distribution.

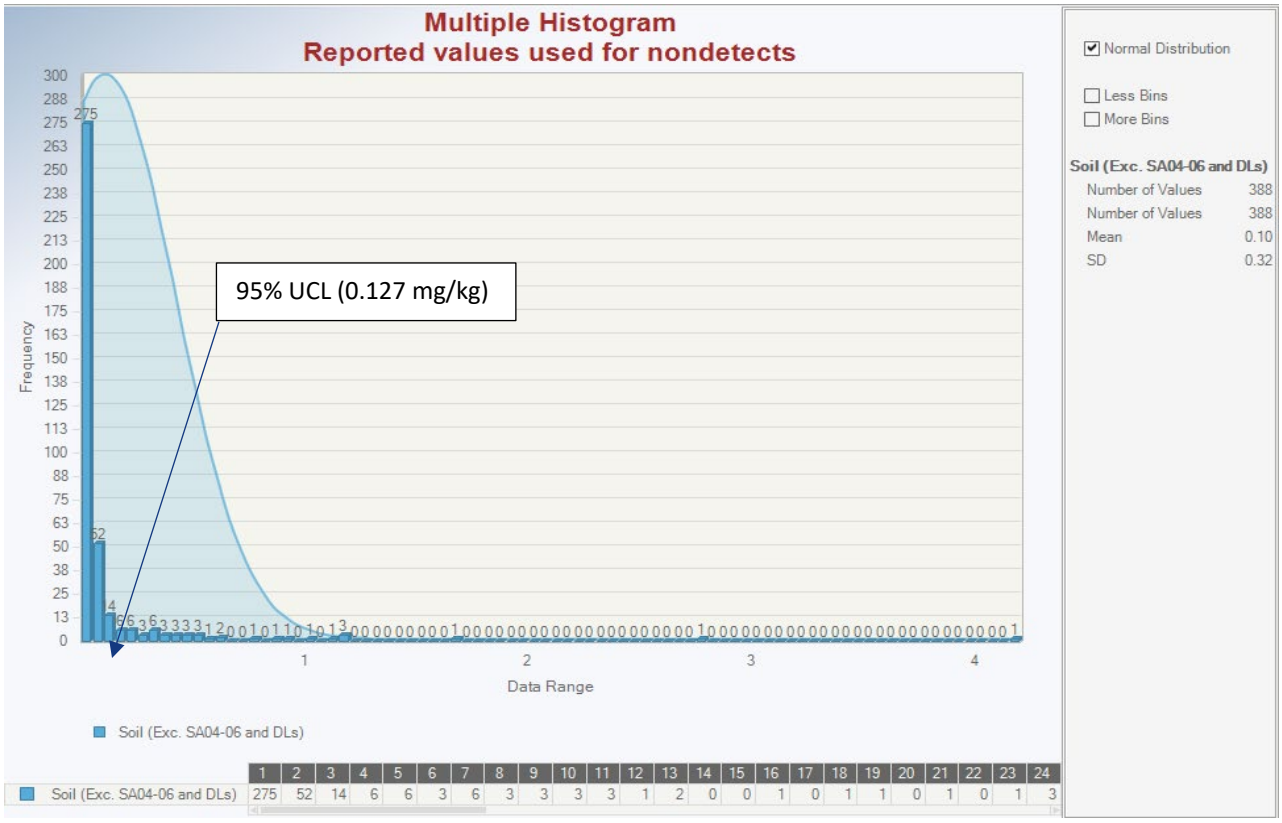


Plate 1 Shallow and accessible terrestrial soil PFOS+PFHxS histogram (0.05 mg/kg increments)

7.3 Aquatic exposure assessment

7.3.1 Aquatic exposure point concentrations

EPCs were estimated in **Section 3.4** based on empirical data. The adopted EPCs are based on either the maximum concentration or the 95% UCL for the available dataset, as nominated in **Table 3.12.** JBS&G notes that adoption of the maximum or the 95% UCL is a conservative measure which is likely to overstate typical exposure, but is considered appropriate given the uncertainties which are inherent when conducting a detailed ERA.

For the majority of the biota data, whole body samples have been collected. However, for the predatory fish category, the data set is limited to fillet samples from a single fish species which was identified to spend a relatively high proportion of its life cycle within the AOI. For the purposes of this ERA, the predator fish EPCs have been adjusted from the concentrations measured within the fillet samples to reflect the likely higher concentration of PFOS+PFHxS which will be present in the whole body of the fish (i.e. which is the concentration relevant for assessing risks to ecological receptors which consume fish). The following studies have been considered which assess the relationships between whole-body and muscle tissue (fillet) PFAS concentrations:

- Tissue concentrations of per- and polyfluoroalkyl substances (PFAS) in German freshwater fish: Derivation of fillet-to-whole fish conversion factors and assessment of potential risks (Rudel H, 2022).
- Two for the Price of One: Deriving Per-and Polyfluoroalkyl Substances (PFAS) Fillet and Whole-Body Conversion Equations in Fish (Levanduski et al., 2024).

These studies present empirically estimated ratios between the concentration of PFOS, as well as other PFAS, in muscle tissue and the whole-body. Levanduski et al. (2024) presents a linear regression equation based on 429 samples which supposes that the concentration of PFOS in the whole-body generally follows the form of 1.87 multiplied by the concentration in the fillet plus 0.0126 mg/kg. Rudel et al. (2022) presents an empirically derived ratio (whole body concentration = fillet concentration * 2.6).

Fish fillet concentrations are consistently found to be lower than whole-body concentrations. Given that the avian ROC are likely to preferentially consume the entire fish rather than the lower concentration fillet, an adjustment is required to be made to the EPC to ensure that the estimated exposures are suitably conservative.

The empirical equation presented by Levanduski et al. (2024) has been adopted to back-convert whole-body concentrations from measured fillet concentrations. Levanduski et al. (2024) presented their relationship based on a substantially improved dataset representing an order of magnitude more data than Rudel et al. (2022). For this project, there is no combined whole body and fillet data available which would allow for verification of this approach as being valid for this particular data set. As such, there is a level of uncertainty regarding the predator fish EPCs. This uncertainty has been considered in the risk characterisation process.

Table 7.1 summarises concentrations of PFOS+PFHxS in surface water within RAAF Lake as separated into the three available sampling rounds as well as on a whole of dataset basis. The EPCs presented in **Table 7.1** have been adopted to assess potential risks to aquatic species within RAAF Lake (**Section 9.4**) **Table 7.2** shows the adopted PFOS+PFHxS EPCs for each of the aquatic AOI.

Table 7.2 additionally compares the EPCs to the tier 1 screening criteria as incremented by one and two orders of magnitude to provide context to the magnitude of the observed tier 1 screening criteria exceedances. As can be observed in **Table 7.2**, the BTV for surface water is exceeded by more than two orders of magnitude in both RAAF Lake and Port Phillip Bay inshore, but the associated biota EPCs estimated in Port Phillip Bay exceed the adopted BGVs by less than 10x (plants and invertebrates) and 10-100x (fish), suggesting the BTV is a conservative screening criterion. The magnitude of exceedance is observed to be highest in fish, suggesting that preferential piscivores may be at higher risk, which is ultimately supported by the dietary exposure assessment and risk characterisation.

The data for RAAF Lake has been separated into multiple datasets to evaluate the potential difference in estimated risks arising from alternative data assessment approaches. As can be observed in **Table 7.1**, the estimated EPC for surface water based on the entire dataset is larger than the EPCs estimated for the individual sampling rounds. This is attributable to the modality of the 'all data' dataset resulting from grouping sampling rounds with materially distinct reported PFOS+PFHxS concentrations. The 'all data' dataset has a considerably longer confidence interval which considerably increases the confidence intervals of the data. This effect is not observed in the Port Phillip Bay dataset and accordingly no separation of sampling rounds is undertaken for Port Phillip Bay surface water.

Table 7.1 Sampling round EPCs for surface water (PFOS+PFHxS, µg/L)

Surface water concentration	All data		Spring/ Summer 2018		Spring/ Summer 2020		Spring/ Summer 2024	
	EPC	Basis	EPC	Basis	EPC	Basis	EPC	Basis
Tier 1 (95% spp. DGV)	0.9							
Tier 1 (99% spp. DGV)	0.02							
BTV	0.0005							
RAAF Lake	233[1]	95% UCL (N=18)	27[2]	Max (N=4)	41[3]	Max (N=4)	198[4]	95% UCL (N=10)
Port Phillip Bay inshore	0.057	95% UCL (N=22)	-[5]	-[5]	-[5]	-[5]	-[5]	-[5]

[1] 95% UCL (range 1.4 to 460 µg/L). It is noted the 95% UCL for all data is higher than the 95% UCL estimated for each individual sampling round indicating that the data are multimodal.

[2] Maximum value of Spring/Summer 2018 sampling round shown (range 1.4 to 27 µg/L).

[3] Maximum value of Spring/Summer 2020 sampling round shown (range 23.6 to 41.2 µg/L).

[4] 95% UCL shown (range 2.3 to 460 µg/L).

[5] Seasonal data only considered for RAAF Lake due to wetting and drying cycles. Port Phillip Bay assessed based on the whole dataset only.

Table 7.2 Summary of adopted PFOS+PFHxS aquatic EPCs

AOI	Sediment	Surface water	Aquatic vegetation	Benthic invertebrates	Pelagic invertebrates	Predator fish whole (fillet)	Prey fish
	mg/kg	*µg/L*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
Tier 1[1]	NA	0.0005[2]	0.0031	0.0031	0.0031	0.0031	0.0031
Tier 1 x 10[1]	NA	0.005[2]	0.031	0.031	0.031	0.031	0.031
Tier 1 x 100[1]	NA	0.05[2]	0.31	0.31	0.31	0.31	0.31
RAAF Lake	4.2[6]	41[5,7]	-[3]	-[4]	-[3]	-[3]	-[3]
Port Phillip Bay foreshore	0.018[6]	-[3]	0.0026[6]	0.0082[6]	-[3]	-[3]	-[3]
Port Phillip Bay inshore	0.016[6]	0.057[6]	0.010[6]	0.012[6]	0.023[7]	0.26[4,7] (0.13)	0.086[6]

[1] Value adopted to contextualise magnitude of bioaccumulation screening criteria exceedances.

[2] No data available in area.

[3] Media absent from in area.

[4] Based on the linear regression equation derived by Levanduski et al. (2024). Adoption of the simple ratio presented by Rudel et al. (2022) would result in an estimated whole body concentration of 0.34 which is considered not meaningfully different in the context of this assessment.

[5] JBS&G has assessed potential risks based on the Spring/Summer 2020 EPC. This sampling round represents inundated conditions which are more likely to reflect actual exposures than the drier conditions represented by the Spring/Summer 2024 sampling round.

[6] 95% UCL based EPC.

[7] Maximum based EPC.

7.3.2 Aquatic receptor exposure parameters

7.3.2.1 General

An assessment has been undertaken of the potential exposure of key avian and mammalian receptors in the receiving environment. To inform the assessment, key general factors have been considered which are provided in **Table 7.3**. For the purpose of the ensuing risk calculations, the lower bodyweight amongst reported ranges for receptor species has been considered which has the effect of increasing the estimated food intake to bodyweight ratios and accordingly increasing the estimated risks.

Table 7.3 Receptors of concern - general information

Species	General description
Resident birds	
Black swan - aquatic primary consumer and herbivore	Black swan (Birdlife Australia 2023a): • The black swan is a large bird (110 to 140 centimetre (cm) long) with a wingspan of 160—200 cm. Bodyweight is reported to range between 3700 and 8750 grams (g). • They are widespread in temperate and tropical terrestrial wetlands, sheltered estuarine and maritime habitats. They prefer large permanent waters and avoid fast flowing or turbulent water. • They tolerate fresh to hypersaline conditions and is common on large salt lakes, coastal lagoons, estuaries, inlets saltpans and saltmarshes. • They are entirely herbivorous, usually consuming leaves and shoots of aquatic vegetation. Food is taken while swimming by up-ending or skimming surface flora. Occasionally eat terrestrial vegetation fringing • Adults are sedentary when living in permanent waterbodies. Young and adults living in ephemeral water bodies are reported in Birdlife Australia (2023a) to move far and often.
Australasian shoveler - aquatic secondary-tertiary invertivore	Australasian shoveler (Birdlife Australia 2023b): • The Australasian shoveler is a medium sized bird (45—55 cm long) with a wingspan of 70—80 cm. Bodyweight is reported to range between 540 and 850 g. • They are aquatic, mainly living in temperate terrestrial wetlands and occasionally sheltering on estuarine and inshore waters. • They primarily reside / forage within estuarine waters or wetlands. • They are dispersive with banding results identifying this species up to 800 km from banding sites. • They are a primarily invertivorous omnivore (48.7% insects, 23.8% plants, 21.7% molluscs, 5.8% crustaceans).
Little egret - aquatic tertiary or quaternary consumer and Invertivore/ piscivore	Little egret (Birdlife Australia 2023c): • The little egret is a small to medium-sized all-white bird with a black bill and legs (55—65 cm long). It has a wingspan of approximately 90 cm. The little egret is reported to range in bodyweight from 325 to 390 g. • They are primarily found in terrestrial wetlands and estuarine and littoral habitats, foraging in shallow open water (0.1 to 0.15 m deep, and on shores or exposed flats. • Movements are poorly understood, mostly occurring over short distance but dispersive when necessary. Reporting in Victoria suggests no long-distance seasonal movements. • They are a predator, primarily consuming fish but also frogs and insects to a lesser extent.

Species	General description
Caspian tern – aquatic tertiary or quaternary consumer and Invertivore/ piscivore	Caspian tern (Birdlife Australia 2023d): • The Caspian tern is a huge gull-like tern (47 to 54 cm long) with a wingspan of approximately 130 to 145 cm. They are reported to range in bodyweight between 610 and 1320 g. • Their primary habitat is identified as coastal bays, including harbours, lagoons, inlets, bays, estuaries and river deltas, usually with sandy or muddy margins. • Their movements are poorly known, identified as partly resident, partly dispersive and possibly partly migratory. With banding records up to 10 km from nest sites, and otherwise dispersive. • They are estimated to consume >95% of its diet from fish, with a minor <5% contribution from crustaceans.
Osprey - aquatic quaternary consumer and piscivore	Osprey (Birdlife Australia 2023e): • The osprey is a medium sized piscivorous raptor (50—65 cm long), with a wingspan of 145—170 cm. They are reported to range in bodyweight between 1000 and 1500 g. • They prefer littoral habitats, terrestrial wetlands and coastal lands and requires sheets of clear open water for fishing. The osprey is mostly sedentary but forages over a wide area and usually nests within 1 km of waterways. • They eat mostly fish but also small terrestrial vertebrates, seabirds and crustacea. Remains observed at feeding roosts included 85% fish, 12% birds and 3% crustaceans.
Migratory and partially migratory birds	
Double-banded plover – aquatic secondary - tertiary consumer and invertivore	Double-banded plover (Birdlife Australia 2023f): • The double-banded plover is a small plump plover (18—21 cm long) with a wingspan of 37 to 42 cm. They are reported to range in bodyweight from 60 to 80 g. • They occur in a variety of littoral, estuarine and fresh and saline terrestrial wetlands including saltmarsh. • Partly migratory and dispersive, most birds undertake long-distance migrations to New Zealand and south-east and south-west Australia. • They primarily consume molluscs, insects, crustaceans and spiders, with less intake from seeds and fruits.
Little tern - aquatic tertiary or quaternary consumer and Invertivore/ piscivore	Little tern (Birdlife Australia 2023g): • The little tern is a very small, slender sea tern (20—28 cm long) with a small wingspan of 45—55 cm. The little tern is reported to range in bodyweight from 40—50 g. • They prefer sheltered coastal environments, including lagoons, estuaries, river mouths, bays, harbours and inlets. • They are migratory or partly migratory. • They are carnivorous, mainly consuming small fish but also crustaceans, insects, worms and molluscs.

7.3.2.2 Surface water intake

The rate of surface water intake for each of the identified ROC has been estimated as consistent with the method presented in US EPA (1993). This is consistent with the approach presented in SERDP (2020).

The following equation was used to estimate the surface water intake for birds:

$$IR_{SW} = 0.059 * \left(BW(kg)\right)^{0.67}$$

Where: IR_{SW} is the ingestion rate of surface water in litres per day.

BW is the bodyweight of the receptor in kg (**Table 7.3**).

The calculated ingestion rates are provided in **Appendix D**.

7.3.2.3 Dietary intake

The rate of food intake for each of the identified ROC has been estimated as consistent with the method presented in Nagy KA (2001) and US EPA (1993), which is consistent with the approach presented in SERDP (2020).

The equations for dietary intake have been estimated for each of the receptors as both dry matter intake (DMI) and fresh matter intake (FMI). Concentrations of PFOS+PFHxS in biota have been measured on a fresh matter basis and, as such, to estimate intake of PFOS+PFHxS, the fresh matter intake rates were required to be estimated.

Nagy KA (2001) presents a comprehensive analysis of the food intake requirements for wild animals. The data are presented for each of the species considered in the study and then an allometric equation provided to facilitate estimates of food intake requirements of similar species based on their foraging and feeding habits. The allometric equations were generated for groups of species based on statistical regression analyses. Each of the species included in the analysis were assigned one or more group identifiers (e.g. all mammals, marsupials and rodents) and their corresponding food intake and bodyweights were plotted on a log10 transformed x-y scatter plot. A linear regression was undertaken for each of the datasets which measured the y-intercept (i.e. 'a' parameter) and the slope of the resulting line (i.e. 'b' parameter). Each of the groups was then assigned an 'a' and 'b' parameter which can be used to estimate the food intake of similar species on the basis of the species' bodyweight, as per the equation presented following.

Multiple group identifiers are provided which are potentially relevant to each of the species identified in **Table 7.3**. JBS&G has reviewed the allometric equations and parameters which may apply to each of the species and has adopted the group identifier which would result in the highest predicted food intake rate (FIR).

The predictive equation takes the form as presented following:

$$FIR = a * BW^{b}$$

Where: FIR is the food ingestion rate of biota in g per day.

a and b are the y intercept and slope of the line equation generated by linear regression of the $\log_{10}$ transformed food intake to bodyweight ratios of similar species and have been obtained from Nagy KA (2001).

BW is the bodyweight of the receptor in grams (**Table 7.3**).

The calculated ingestion rates are provided in **Appendix D**. It is noted that the FMI and DMI are calculated in the same manner using different 'a' and 'b' values.

Based on the dietary preferences of species summarised in **Table 7.3**, and in accordance with the general aquatic food groups identified for ecological food groups, a proportion of dietary FMI has been estimated for each of the food groups for each of the receptors.

In estimating the dietary intakes, it is noted that specific dietary intakes for species are very rarely documented within the available scientific literature. Where available, such parameters have been stated in **Table 7.3**. These parameters are subject to professional judgement, with the effects of adopting alternative parameters considered as part of the sensitivity assessment (**Section 10.4** and **Section 10.5**). It is further noted that the effect of the assumptions may be consequential where the relevant dietary components are materially different in concentration (e.g. 90% fish to 10% plants vs. 90% plants to 10% fish) though it is considered that the available information is sufficient to ensure that such large differentials in selected parameters would be unlikely.

7.3.2.4 Daily sediment ingestion

The rate of sediment intake has been estimated consistent with the method presented in US EPA (1993), based on an incidental intake proportional to intake of dietary food sources.

The sediment intake proportions have been estimated on a worst case basis using professional judgement, by review of the intake rates presented in US EPA (1993) for similar species. The sediment percentage of dietary intake (based on dry weight) varies from <2 percent to 30 percent. The approach has been to identify species of similar dietary preferences and foraging habits within the dataset provided in US EPA (1993) and assign the sediment intakes to ROC. The nominated representative US EPA (1993) and the rationale for selection is provided in **Table 7.4**.

The predictive equation takes the form as presented following:

$$I_{SED} = P_{SED} * FIR_{DMI}$$

Where: I_{SED} is the sediment ingestion rate in g per day.

P_{SED} is the proportion of matter intake which is attributable to sediment, as a proportion of the total dry matter equivalent intake of biota.

FIR_{DMI} is the dry matter equivalent food ingestion rate estimated using the same approach as for wet-weight food intake (**Section 7.3.2.3**), using alternative 'a' and 'b' parameters presented in Nagy KA (2001).

The calculated sediment ingestion rates are provided in **Appendix D**.

Table 7.4 Adopted aquatic ROC incidental sediment intake rates and rationale

ROC	P_{SED}	US EPA (1993) species	Rationale
Black swan	0.082	Canada goose	Large herbivorous birds, both graze on aquatic vegetation.
Australasian shoveler	0.02	Blue-winged teal	Filter feeders specialised at targeting invertebrates in shallow water.
Little egret	0.02	None	No clear analogue in list, the little egret primarily targets fish and frogs with limited incidental sediment exposure. Adopted minimum of group to represent lower exposure to ingested sediment.
Caspian tern	0.02	None	No clear analogue in list, the Caspian tern primarily consumes fish with limited incidental sediment exposure. Adopted minimum of group to represent lower exposure to ingested sediment.
Osprey	0.02	None	No clear analogue in list, the osprey primarily consumes fish with limited incidental sediment exposure. Adopted minimum of group to represent lower exposure to ingested sediment.
Double-banded plover	0.3	Semipalmated sandpiper	Small shorebird which utilises pecking and targets benthic invertebrates.
Little tern	0.02	None	No clear analogue in list, the little tern primarily consumes fish with limited incidental sediment exposure. Adopted minimum of group to represent lower exposure to ingested sediment.

7.3.2.5 Home range and area use factors

The AUF is an exposure factor which describes the proportion of time that a given representative ROC spends within a specific feeding area. This factor effectively represents the proportion of ingestion of media exposure which will occur within one specific portion of a broader home range. Failure to consider the AUF can lead to overly conservative estimates of risk, particularly where an exposure area represents a relatively limited dietary source for a receptor (e.g. a migratory bird or raptor).

The AUF approach adopted has not quantified the magnitude of PFAS uptake which occurs in areas outside of the AOI. In accordance with the objectives of the assessment (**Section 1.2**), the assessment is designed to evaluate the potential for base attributable PFAS to pose a potentially unacceptable risk to receptors. The

approach adopted in the use of AUFs has been to estimate a reasonable upper limit for an individual ROC within a given AOI. The adopted AUFs are not intended to represent an individual ROC's cumulative exposure across all AOI. This provides a risk characterisation which is specific to each AOI and informs future remediation and/or management decisions based on addressing potential risks posed to individual ROC within each of the AOI.

Evenly distributing AUFs between AOIs (e.g. so that they sum to 1) is less conservative and has a higher degree of uncertainty than making reasonable assumptions of the maximum reasonable usage of any specific AOI. A review of reputable sources of information has been undertaken to estimate the proportion of time each representative ROC spends living, foraging and predating within the AOI. Reputable quantitative data relevant to estimating the home-ranges of specific species is limited. Consideration has been given to adoption of factors which represent conservative professional judgements for each species, with the rationale for adoption provided in **Table 7.5** for aquatic ROC**.**

RAAF Lake is identified as a temporal wetland habitat with foraging and predation potential limited to periods in which the lake is wet and food sources potentially include brine shrimp and other benthic invertebrates. Outside these periods, the lake is observed to comprise limited hypersaline shallow ponds and channels, unlikely to be preferred as food source for terrestrial mammals or avian species. Notwithstanding, AUFs have been adopted for aquatic ROC in RAAF Lake, equivalent to half the AUF for Port Phillip Bay, to estimate potential abiotic media intakes. It has been assumed that preferential piscivores will not spend a significant amount of time in RAAF Lake given the absence of fish.

JBS&G has sought specialist ecologist advice from JBS&G ecologists and Elgin in relation to the AUF assumptions, which are significant with respect to the overall assessment of risk. AUFs have been selected to balance the risk of both under- and overestimation of potential PFAS risks. The adopted AUFs should be considered to represent a likely upper bound on the actual representative area use by each species. However, in the absence of supporting quantified data being available within public literature to support more refined estimates of area uses by receptors in this context it is considered appropriate to adopt upper bound AUF based on professional judgement.

Table 7.5 Receptors of concern – aquatic area use factors

Species	Port Phillip Bay (foreshore / inshore)	RAAF Lake	Comment
Resident/Nomadic Birds			
Black swan	1 (0.1 / 0.9)	0.5	An AUF of 1 has been adopted for the black swan in Port Phillip Bay, of which 90% is assumed to occur in the inshore areas based on dietary preferences. The black swan has frequently been observed within this AOI. An AUF of 0.5 has been adopted for the black swan in RAAF Lake. The black swan has been observed within RAAF Lake and the AUF reflects the anticipated proportion of the time that RAAF Lake is inundated. Both adopted AUFs are considered to represent an overestimate for individuals which are likely to exhibit a wider home-range than the AOI.
Australasian shoveler	0.5 (0.05 / 0.45)	0.25	An AUF of 0.5 has been adopted for the Australasian shoveler in Port Phillip Bay, of which 90% is assumed to occur within the inshore areas based on dietary preferences. The Australasian shoveler is anticipated to prefer wetlands to sheltered bays. An AUF of 0.25 has been adopted for the Australasian shoveler in RAAF Lake consistent with the anticipated proportion of the time that RAAF Lake is inundated.
Little egret	0.25 (0.01 / 0.24)	0.01	An AUF of 0.25 has been adopted for the little egret in Port Phillip Bay, a nominal AUF of 0.01 is assigned to the foreshore with the balance of the AUF to the inshore. The nominal exposures of 0.01 to the lake and foreshore of Port Phillip Bay consider potential incidental usage only. The little egret uses a wide variety of wetlands, lakes, swamps as well as coastal areas. Little egrets are not anticipated to access RAAF Lake for predation or other purposes on a regular basis and accordingly the potential exposure is considered negligible and a nominal value of 0.01 has been adopted.
Caspian tern	0.25 (0.01 / 0.24)	0.01	An AUF of 0.25 has been adopted for the Caspian tern in Port Phillip Bay, a nominal AUF of 0.01 is assigned to the foreshore with the balance of the AUF to the inshore. The nominal exposures of 0.01 to the lake and foreshore of Port Phillip Bay consider potential incidental usage only. The Caspian tern typically forages in open wetlands, lakes and rivers, as well as open coastal waters. Caspian terns are not anticipated to access RAAF Lake for predation or other purposes on a regular basis and accordingly the potential exposure is considered negligible and a nominal value of 0.01 has been adopted.
Osprey	0.1 (0.01 / 0.09)	0.01	An AUF of 0.1 has been adopted for the osprey in Port Phillip Bay, a nominal AUF of 0.01 is assigned to the foreshore with the balance of the AUF to the inshore. The nominal exposures of 0.01 to the lake and foreshore of Port Phillip Bay consider potential incidental usage only . The osprey is an apex predator that prefers open waterbodies for predation. The AUF represents the large home-range anticipated for this species. Ospreys are not anticipated to access RAAF Lake for predation or other purposes on a regular basis and accordingly the potential exposure is considered negligible and a nominal value of 0.01 has been adopted.
Migratory/Partly Migratory Birds			

Species	Port Phillip Bay (foreshore / inshore)	RAAF Lake	Comment
Double-banded plover	0.25 (0.125 / 0.125)	0.125	An AUF of 0.25 has been adopted for the double-banded plover in Port Phillip Bay, as equally split between the foreshore and inshore areas based on benthic invertebrate dietary preferences. The AUF is based on its anticipated migration and that its use of coastal bays for foraging/predation is not exclusive. An AUF of 0.125 has been adopted for the double-banded plover in RAAF Lake consistent with the anticipated proportion of the time that RAAF Lake is inundated.
Little tern	0.5 (0.25 / 0.25)	0.01	An AUF of 0.5 has been adopted for the little tern in Port Phillip Bay based, as equally split between the foreshore and inshore areas based on dietary preferences. The AUF is based on its anticipated migration and that its use of coastal bays for foraging/predation is not exclusive. The nominal AUF of 0.01 to the lake considers potential incidental usage only. Little terns are not anticipated to access RAAF Lake for predation or other purposes on a regular basis and accordingly the potential exposure is considered negligible and a nominal value of 0.01 has been adopted.

7.3.3 Aquatic exposure dose estimation

Dosages have been estimated by multiplying the media intake rate for surface water (litres (L)/day), soil and sediment (g/day) and various biota food groups (g/day) by the EPCs provided in **Table 7.2**. The doses were estimated on a per medium basis, as well as total sum of pathways, and are provided in **Appendix D**.

The TDD was estimated in accordance with the following equation which is adapted from US EPA (1993) equation 4-8:

$$Total\ Daily\ Dose = AUF * \left(\frac{W_{IR} * C_{SW} + DMI * (P_{sed} * C_{sed}) + FMI * (\sum P_{BIO} * C_{BIO})}{BW} \right)$$

Where: the total daily dose is in mg/kg.bw/day.

AUF is the area use factor (-).

C_{SW} is the concentration in surface water (mg/L).

C_s and C_{sed} are the concentrations in soil and sediment, respectively (mg/kg).

W_{IR} is the water ingestion rate (L/day).

DMI is the food ingestion rate (kg.dm/day).

FMI is the food ingestion rate (kg.ww/day).

P_{sed} are the proportion of daily dry matter intake attributable to incidental consumption of soil and sediment.

P_{BIO} is the proportion of wet-weight dietary intake attributable to each category of biota (i.e. terrestrial plants and invertebrates, aquatic vegetation, pelagic invertebrates, benthic invertebrates, prey fish and predatory fish (-).

C_{BIO} is the concentration in category of biota (i.e. aquatic vegetation, pelagic invertebrates, benthic invertebrates, prey fish and predatory fish (mg/kg).

BW is the bodyweight (g).

8. Toxicity assessment

8.1 General

PFAS represent a broad group of chemical compounds which are currently being actively researched with respect to factors including (but not limited to) laboratory quantification of individual PFAS compounds and toxicity. PFAS include individual compounds which have been declared as persistent organic pollutants (POPs) under the Stockholm Convention. POPs are defined as follows by the United Nations Environment Programme (UNEP):

> *'… organic chemical substances, that is, they are carbon-based. They possess a particular combination of physical and chemical properties such that, once released into the environment, they:*
>
> - *remain intact for exceptionally long periods of time (many years).*
> - *become widely distributed throughout the environment as a result of natural processes involving soil, water and, most notably, air.*
> - *accumulate in the living organisms including humans, and are found at higher concentrations at higher levels in the food chain.*
> - *are toxic to both humans and wildlife'.*

PFAS are one of many POPs and the following definitions provided in *Australian and New Zealand guidelines for fresh and marine water quality* (ANZECC/ARMCANZ 2000) are considered to remain as relevant to PFAS as the contaminants which were considered to be POPs at the time these documents were prepared (e.g. polychlorinated biphenyls (PCBs) and organochlorine pesticides (OCPs)):

- *'Bioaccumulation: General term describing a process by which chemical substances are accumulated by aquatic organisms from water, either directly or through consumption of food containing the chemicals.*
- *Bioconcentration: A process by which there is a net accumulation of a chemical directly from water into aquatic organisms resulting from simultaneous uptake (e.g. by gill or epithelial tissue) and elimination.*
- *Bioconcentration factor (BCF): A unitless value describing the degree to which a chemical can be concentrated in the tissues of an organism in the aquatic environment. At apparent equilibrium during the uptake phase of a bioconcentration test, the BCF is the concentration of a chemical in one or more tissues of the aquatic organisms.*
- *Biomagnification: Result of the processes of bioconcentration and bioaccumulation by which tissue concentrations of bioaccumulated chemicals increase as the chemical passes up through two or more trophic levels. The term implies an efficient transfer of chemicals from food to consumer, so that residue concentrations increase systematically from one trophic level to the next.'*

8.2 Key toxicity testing concepts

National and international ecological risk assessment guidance relies upon toxicological assays which relate observations of effects to concentrations or doses of contaminants. The key toxicological testing measures referred to within this detailed ERA are described following:

- NOEC – no observed effect concentration. This is the highest concentration in a medium (e.g. soil or surface water) of a chemical or substance at which no statistically significant adverse effect was observed on the test organisms in comparison to controls. A NOEC is preferred over a LOEC to assess potential risks at it represents a known no effect dose and does not require adjustment with additional safety factors.
- LOEC – lowest observed effect concentration. This is the lowest concentration in a medium (e.g. soil or surface water) of a chemical or substance at which a statistically significant effect was observed on the

test organisms in comparison to controls. The LOEC is intended to identify a minimum 'unsafe' concentration, and is typically reported as the next incremental concentration above the NOEC.

- EC10 – 10% effect concentration. This is the concentration at which a measurable non-lethal effect (e.g. reduced growth) occurs in 10% of the test population, or the concentration at which a measured response changes 10% relative to controls.
- LC10 – 10% lethal concentration. This is the concentration expected to cause mortality in 10% of the test organisms over a defined period of exposure.
- IC10 – 10% inhibition concentration. This is the concentration expected to inhibit a biological function (e.g. growth rate) or process by 10% compared to controls.
- NOAEL – no observed adverse effect level. This is the highest estimated dose of a toxicant of a chemical or substance at which no adverse effects were observed on the test organisms. The NOAEL is intended to identify a maximum 'safe' dose of a chemical, typically normalised to mass of chemical per mass of organism per unit time (e.g. mg/kg.bw/day). The NOAEL can be used to assess both ecological species and can also be used in human toxicological assessments. In general, a NOAEL is preferred over a LOAEL to assess potential risks at it represents a known no effect dose and does not require adjustment with additional safety factors.
- LOAEL – lowest observed adverse effect level. This is the lowest estimated dose of a toxicant (e.g. PFOS) of a chemical or substance at which an adverse effect was observed on the test organisms. The LOAEL is intended to identify the minimum 'unsafe' dose of a chemical, typically normalised to mass of chemical per mass of organism per unit time (e.g. mg/kg.bw/day). The NOAEL can be used to assess both ecological species and can also be used in human toxicological assessments.

Tier 1 criteria for lower order terrestrial receptors (i.e. plants and invertebrates) and for aquatic species (e.g. amphibians, plants, fish), the toxicological testing data is used to develop species sensitivity distribution (SSD), whereby the measured toxicological testing data is are mapped to a distribution and a line of best fit applied to interpolate the concentration of a toxicant in a medium (e.g. soil) at which a given percentage of species are expected to be observed to be affected by the presence of the contaminant.

Tier 1 criteria for higher order species (e.g. mammalian receptors), toxicological testing data is reviewed to identify the most appropriate LOAEL / NOAEL on which to estimate a conservative tolerable daily intake (TDI) or daily threshold effects does (DTED). The DTED and TDI typically incorporates one or more safety factors to account for limitations on the available toxicological effects (e.g. inter- or intra-species variation, sub-chronic to chronic study).

8.3 Aquatic species toxicity

8.3.1 Aquatic receptor direct exposure toxicity assessment

Direct toxicity to aquatic receptors has been assessed by the comparison of measured surface water concentrations to chronic NOEC values. Reference has been made to ANZG (2026) which presents an extensive dataset of chronic PFOS freshwater toxicity data for 37 species from 11 taxonomic groups upon which the current tier 1 criteria for PFOS are based.

The criteria presented in ANZG (2026) were derived in accordance with the revised method for deriving water quality guideline values, namely *Method for deriving Australian and New Zealand water quality guideline values for protecting aquatic ecosystems from toxicants – update of 2018 version Prepared for the Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (Warne *et al.* 2025). Derivation of the criteria considered formal modality checks and quality screening of the underlaying data.

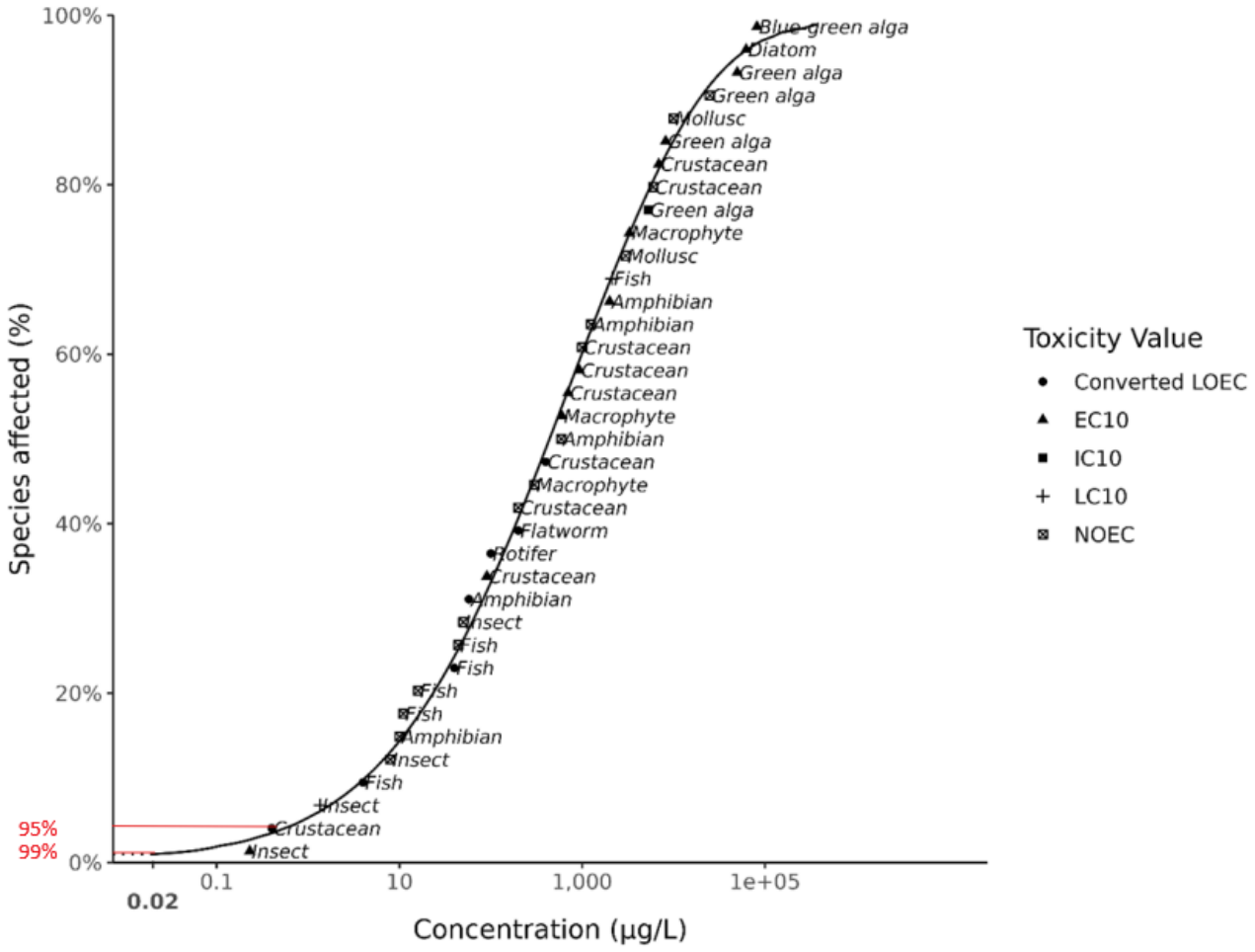


Plate 2 ANZG (2026) Species Sensitive Distribution, PFOS in Fresh water

The SSD presented in ANZG (2026) was constructed by compiling chronic toxicity endpoints which passed the quality control screening. For each species, the most sensitive chronic toxicity value was selected following the hierarchy established in Warne *et al.* (2025). Ther compiled values were then ranked in order of increasing sensitivity and fitted to a statistical distribution (i.e. the SSD) which described the proportion of species affected as a function of the exposure concentration. The SSD allows the concentration which is protective of a nominated percentile of the tested species to be estimated by interpolation. The nominated DGVs are the interpolated concentrations which are protective of 99%, 95%, 90% and 80% of species.

ANZG (2026) additionally identifies that biota within the water body may express PFOS in tissue at concentrations which exceed the HEPA (2026) mammalian tissue screening guidelines even if the water concentration is below the 99% spp. DGV.

The criteria recommended in ANZG (2026) are summarised in **Table 8.1**.

Table 8.1 ANZG (2026) Species sensitivity distributions

Level of species protection	DGV for PFOS anion in freshwater (µg/L)
99%	0.02
95%	0.9

[1] For the purpose of this assessment, JBS&G has assumed that PFHxS is as toxic as PFOS, which is consistent with the approach for other media as presented in the HEPA (2026).

ANZG (2026) presents single chronic toxicity values used to derive PFOS DGVs in freshwater, which are summarised in **Table 8.2**.

Table 8.2 ANZG (2026) Toxicity data for PFOS (by Taxonomic Group)

Taxonomic Group	No. species	Estimated chronic value (µg/L)	Sensitive end-point
Amphibians			
Amphibian	5	10 to 2000 µg/L	Tadpole, development (NOEC)
Plants / Algae			
Blue-green algae	1	82 000 µg/L	Growth, biomass (EC10)
Green microalgae	4	8200 µg/L	Growth, biomass (IC10)
Macrophyte	3	300 to 3300 µg/L	Growth (NOEC)
Diatom	1	62 300 µg/L	Growth, cell density (EC10)
Invertebrates			
Crustacean	6	0.4 to 6900 µg/L	Neonate reproduction (EC10): 90.6 µg/L[1]
Insect	4	0.23 7.95 µg/L	Larval growth (EC10)
Mollusc	3	3000 to 10 000 µg/L	Adult, survival (NOEC)
Flatworm	1	200 µg/L	Fragment, reproduction (LOEC)
Rotifer	1	100 µg/L	Neonate, population (LOEC)
Vertebrates			
Fish	6	4 to 2120 µg/L	Embryo, F1 generation, reproduction (LOEC)

[1] The EC10 based chronic NOEC is adopted in preference to the LOEC based NOEC. Both end-points assess reproduction as the toxicological effect. According to Section 3.2.4 of *Method for deriving Australian and New Zealand water quality guideline values for protecting aquatic ecosystems from toxicants – update of 2018 version* (Warne *et al.* 2025) the EC10 based NOEC is preferable to LOEC based NOEC as no conversion is required to be applied.

The adopted assessment endpoints are summarised:

- Amphibians: 10 µg/L (tadpole development NOEC).
- Plants/algae: 300 µg/L (growth NOEC).
- Crustaceans: 90.6 µg/L (neonate reproduction, EC10 based NOEC).
- Insects: 0.23 µg/L (larval growth, EC10 based NOEC).
- Mollusc: 3000 µg/L (adult survival, NOEC).
- Flatworms: 200 µg/L (fragment reproduction, NOEC).

- Rotifers: 100 µg/L (neonate population, LOEC based NOEC).
- Fish: 4 µg/L (embryo, F1 generation, reproduction LOEC based NOEC).

In applying the freshwater criteria to marine/saline water bodies, consideration has been given to the absence of nationally endorsed surface water criteria based on marine toxicity data, and the precedent established in HEPA (2026) of applying the freshwater criteria to marine water environments as an interim measure. Within this detailed ERA, the freshwater criteria and associated toxicity data are adopted to assess potential risks to aquatic receptors. Notwithstanding, consideration has been given to marine species toxicity assessments for PFAS, namely:

- *Marine ecotoxicity evaluation of 10 per- and poly-fluoroalkyl acids using three USEPA short-term chronic bioassays* (Hayman *et al.* 2026). Hayman *et al*. (2026) published measured or estimated NOECs in surface water for PFOS for three species (giant kelp, sea urchin and mussels) which ranged between 290 to 1030 µg/L.
- *Chronic effects and thresholds for estuarine and marine benthic organism exposure to perfluorooctane sulfonic acid (PFOS)-contaminated sediments: Influence of organic carbon and exposure routes* (Simpson *et al*. 2021). Simpson *et al.* (2021) reviewed toxicity effects for 11 species of marine benthic organisms and developed a species sensitivity distribution (SSD) which considered NOECs and chronic EC10s between 100 and 4200 µg/L.

Review of these studies indicates that the most sensitive end-points are in the same order for similar taxa, noting that neither study published fish or insect toxicity data. Hayman *et al* (2026) provides data which indicates that the toxicity of PFHxS is lower than PFOS, supporting that the approach of comparing PFOS+PFHxS concentrations to PFOS criteria is likely to be conservative. Consideration has not been given to development of a marine water spp. DGV based on the available studies.

8.3.2 Aquatic receptor indirect (bioaccumulation) toxicity assessment

The assessment of indirect (bioaccumulation) risks has been focused on higher order species. Bioaccumulation by lower order species is considered to represent lower indirect (bioaccumulation) risks based on the affinity of PFOS+PFHxS to bioaccumulate more in crustaceans and fish than in plants and algae, as indicated by *Evaluation of published bioconcentration factor (BCF) and bioaccumulation factor (BAF) data for per- and polyfluoroalkyl substances across aquatic species* (Burkhardt 2021) and SERDP (2020). Lower order species either do not consume biota for energy (i.e. plants/algae) or consume plants, algae and microorganisms as their primary food source (e.g. crustaceans). Higher order species such as predatory fish primarily consume other vertebrate and macroinvertebrate biota and accordingly are likely to adopt a proportionally large dietary exposure to PFOS+PFHxS.

The default approach to evaluating potential risks to higher order aquatic receptors is to compare EPCs to the spp. DGV which is one level higher than the default value for the waterbody (e.g. for a waterbody afforded a 95% spp. DGV, a 99% spp. DGV would be applied to assess for potential bioaccumulation risks). The species sensitivity distributions developed for PFOS in aquatic environments is highly sensitive to the input of an individual toxicity data point (as discussed above) and the application of the 99% spp. DGV by default to assess higher order species for bioaccumulation risks to aquatic species potentially results in an unnecessary level of conservatism.

ECCC (2018) presents a federal fish tissue guideline (FTTG) which is intended to protect fish from the direct adverse effects of bioaccumulated contaminants. The FTTG was developed on the basis of estimating the fish tissue concentration which would be associated with an exceedance of the aquatic ecosystem health guideline level (6.8 µg/L). This approach has the effect of being able to account for both bioconcentrated (i.e. water to fish tissue) and biomagnified (i.e. prey/food items to fish tissue) contaminants.

ECCC (2018) calculated a FTTG using a bioaccumulation factor equation. The equation involves multiplying the federal environmental quality guideline for the maintenance of aquatic ecosystem health (6.8 µg/L) by the geometric mean PFOS water to biota uptake ratio for fish (1378 L/kg), obtained from a number of studies undertaken between 2002 and 2012. The ECCC (2018) FTTG is 9.4 mg/kg, as derived using the following equation:

$$FTTG = Environmental\ quality\ guieline\ \left(6.8\ \frac{\mu g}{L}\right) * Geomean\ uptake\ ratio\ \left(1378\frac{L}{kg}\right) * 10^{-3}\left(\frac{mg}{\mu g}\right)$$

ECCC (2018) reported that the FTTG was corroborated by a study undertaken on bluegill in which water and fish tissue PFOS concentrations were associated with observed toxicological effects. The study reported a no effect fish tissue concentration of 81 mg/kg for bluegill exposed to PFOS in water at a concentration of 86 µg/L. Dividing the no effect concentration by a safety factor of 10 resulted in a value of 8.1 mg/kg, which is similar to the value determined by equilibrium partitioning that underpins the FTTG (9.4 mg/kg). Acknowledging the uncertainties which are inherent when using BAFs, this provides an important line of evidence to support the BAF approach in this instance.

The FTTG is based on the Canadian maintenance of aquatic ecosystem guideline, which is notably higher than the ANZG (2026) aquatic ecosystem guidelines. Although the Canadian FTTG is based on two different approaches (i.e. evaluation of adverse effects associated with differing water concentrations, and evaluation of adverse effects associated with differing tissue concentrations), as a conservative measure JBS&G has reduced the FTTG by consideration of the Australian spp. DGV. The 95% spp. DGV has been considered below rather than the 99% spp DGV on the basis that:

a) These are the relevant DGVs for the water bodies of interest (RAAF Lake and Port Phillip Bay); and

b) The fish tissue concentration data collected represents a measurement of bioaccumulation (i.e. adopting a higher level of protection to account for bioaccumulation is not warranted).

Adopting a higher BAF (e.g. one based on Burkhardt (2021)) would raise the FTSB and accordingly to remain conservative, the ECCC (2018) BAF has been retained. Adjustment of the FTTG by application of the spp. DGV applicable to each of the AOI instead of federal environment quality guideline results in the following fish tissue screening benchmark (FTSB), which has been considered to assess potential bioaccumulation risks to aquatic receptors, as rounded to two significant figures for Port Phillip Bay (95% spp. DGV, 0.9 µg/L): 1.2 mg/kg.

Whilst not developed based on amphibian or invertebrate specific studies, this value has been adopted to screen for potential amphibian and invertebrate bioaccumulation risks. It is noted that, based on the available toxicological studies reviewed in ANZG (2026), and the average BCFs documented for amphibia and a range of invertebrates SERDP (2020) and Burkhard (2021)), it is considered that the relatively lower PFOS uptake by higher-order species other than fish is offset by their relatively lower sensitivity to PFOS exposure and that the adopted FTSB is appropriate to screen for potential amphibian and invertebrate bioaccumulation risks.

8.3.3 Summary of adopted aquatic toxicological assessment endpoints

The adopted aquatic toxicological assessment endpoints are summarised in **Table 8.3**.

Table 8.3 adopted aquatic toxicological assessment endpoints

Aquatic receptor group	Direct contact[1]	Indirect (bioaccumulation)[2]
Plants/algae	300 µg/L (surface water)	Not relevant
Amphibians	10 µg/L (surface water)	1.2 mg/kg.ww (biota tissue)
Crustaceans	90.6 µg/L (surface water)	1.2 mg/kg.ww (biota tissue)
Insects	0.23 µg/L (surface water)	Not relevant
Molluscs	3000 µg/L (surface water)	Not relevant
Flatworms	200 µg/L (surface water)	Not relevant

Aquatic receptor group	Direct contact[1]	Indirect (bioaccumulation)[2]
Rotifers	100 µg/L (surface water)	Not relevant
Fish	4 µg/L (surface water)	1.2 mg/kg.ww (biota tissue)

[1] Adopted from **Table 8.2**

[2] Adopted from **Section 8.3.2.**

8.4 Mammalian and avian species toxicity

8.4.1 Mammalian species tolerable daily intake

A review has been conducted of the potential for mammalian receptors to be present within the terrestrial areas of the base (**Section 5.5.4**). The mammalian receptors identified with a reasonable potential to obtain a substantial extent of their diet from the base area limited to small and medium sized secondary-tertiary herbivores and omnivores. No predominantly aquatic mammalian receptors were identified and, as such, this review is limited to assessment of potential terrestrial mammalian exposures.

HEPA (2026) presents two criteria for the assessment of potential PFOS+PFHxS risks to sensitive mammalian species: the BGV and the indirect soil criterion. The underlying toxicological end-points for the BGV and indirect soil criterion differ by a factor of 10, and it is not clear in the HEPA (2026) why an alternative toxicological end-points was adopted to develop the two criteria.

The mammalian BGV for PFOS+PFHxS presented in HEPA (2026) is based on a TDI for PFOS adopted directly from ECCC (2018). HEPA (2026) states that adoption of the PFOS TDI allows for uncertainty and potential similar properties and toxicities of PFHxS with PFOS. ECCC (2018) states the following in relation to the mammalian toxicity review for PFOS:

> *'Nine studies were evaluated for four different species, cynomolgus monkeys (Macaca fasicularis), rabbits (Oryctolagus cuniculus), mice and rats. TDIs, calculated as the critical toxicity value divided by an uncertainty factor of 100, ranged from 1.1 to 112 µg/kg bw·d. The lowest TDI of 1.1 µg/kg bw·d was reported for rats and came from a two-year, chronic toxicity diet study (Covance Laboratories 2002).'*

The TDI adopted in HEPA (2026) is 1.1 µg/kg.bw/day. This value has not been adopted to assess mammalian exposure risks as no mammals have been identified for potential aquatic food-web based exposure risks, and terrestrial exposure risk have been assessed using and adjusted soil indirect screening criterion, based on a DTED as discussed in **Section 8.4.3.**

The soil indirect exposure criterion for PFOS was developed using a mammalian DTED of 0.01086 mg/kg.bw/day on the basis of a lowest observed adverse effect level (LOAEL) (0.1086 mg/kg.bw/day) and an uncertainty factor of 10. It is noted that the TDI adopted by ECCC (2018) used the same LOAEL divided by a UF of 100, resulting in the TDI that underpins the HEPA (2026) mammalian BGV. The inconsistency of approach of adopting alternative LOAEL-based toxicity assessment endpoints (i.e. DTED for soil-bioaccumulation criteria and TDI for biota guideline values) remains unresolved as of the issue of this detailed ERA.

The assessment undertaken herein is based on an estimated intake of PFOS+PFHxS from terrestrial biota, based on the bioaccumulation modelling presented in HEPA (2026) which underpins the soil indirect exposure criterion. The effect on the risk estimates which would result from adoption of the alternative toxicity end-point is discussed in the sensitivity assessment (see **Section 10.6.1**).

HEPA (2026) provides generic criteria based on the assessment of 11 terrestrial mammalian species which are representative of different trophic levels and feeding guilds in Australia. The guideline value was developed to protect the most exposed receptor group, which are small invertivorous mammals that have a high food intake to bodyweight ratio.

HEPA (2026) does not specifically model any avian species. It is not clear why no avian species have been modelled, as this represents a different approach to the BGV development which specifically considered avian species.

8.4.2 Avian species tolerable daily intake

The avian BGV for PFOS+PFHxS presented in HEPA (2026) is based on a TDI for PFOS adopted directly from ECCC (2018). HEPA (2026) states that adoption of the PFOS TDI allows for uncertainty and potential similar properties and toxicities of PFHxS with PFOS. ECCC (2018) states the following in relation to the avian toxicity review for PFOS:

> *'Avian: Dietary PFOS toxicity to three avian species, mallard (Anas platyrhynchos), northern bobwhite (quail) (Colinus virginianus) and Japanese quail (coturnix japonica) were evaluated. For developing the avian FWiDG the selected CTV is the LOAEL dose rate in northern bobwhite of 772 µg/kg bw·d that resulted in reduced chick survival post exposure. By applying an UF of 100, a TDI of 7.7 µg/kg bw·d is produced and an avian FWiDG of 8.2 µg/kg food is calculated by dividing that TDI by the maximum avian FI:BW of 0.94 kg food/kg bw·d for Wilson's storm-petrel (CCME 1998). Given the long duration of both the avian and mammalian studies, the uncertainties relate primarily to lack of knowledge of interspecies sensitivity given the paucity of wildlife species in the data set. Therefore an uncertainty factor of 100 was selected (CCME 1998) for both the avian and mammalian dietary guidelines.'*

The TDI of 7.7 µg/kg bw/d (or 0.0077 mg/kg bw/d) has been adopted in this detailed ERA for assessing risks to avian receptors where food-web uptake modelling has been undertaken (i.e. avian receptors in aquatic environments).

The soil indirect exposure criterion for PFOS presented in CCME (2021) was developed using a mammalian DTED of 0.386 mg/kg.bw/day on the basis of a lowest observed adverse effect level (LOAEL) (0.77 mg/kg.bw/day) and a UF of 2. It is noted that the TDI adopted by ECCC (2018) used the same LOAEL divided by a UF of 100, resulting in the TDI that underpins the HEPA (2026) avian BGV. The inconsistency of approach of adopting alternative LOAEL-based toxicity assessment endpoints (i.e. DTED for soil-bioaccumulation criteria and TDI for biota guideline values) remains unresolved as of the issue of this detailed ERA.

The assessment undertaken herein is based on an estimated intake of PFOS+PFHxS from terrestrial biota, based on the bioaccumulation modelling presented in CCME (2021) which underpins the soil indirect exposure criterion (i.e. DTED of 0.386 mg/kg bw/d). The effect on the risk estimates which would result from adoption of the alternative toxicity end-point is discussed in the sensitivity assessment (see **Section 10.6.1**).

CCME (2021) provides generic criteria based on the assessment of two terrestrial avian species which are representative of different trophic levels and feeding guilds in Canada. The guilds adopted are effectively equivalent to feeding guilds/trophic levels in Australia (for herbivores and omnivores).

This DTED effectively underpins the risk characterisation undertaken on terrestrial birds in this detailed ERA as the indirect soil criterion is based upon it.

8.4.3 Summary of adopted mammalian and avian toxicity assessment endpoints

Table 8.4 presents a summary of the adopted toxicity assessment end-points. The ECCC (2018) values have been adopted as consistent with the approach in HEPA (2026) to assess potential exposures to aquatic food sources, which is limited to avian receptors. Background exposures have not been considered for ROC multi-pathway exposure assessments on the basis that the detailed ERA aims to focus upon the risks posed by base originated PFAS to ecological receptors in the AOI. JBS&G has assumed that there is no background intake of PFAS for the ROC, as it is considered that the multi-pathway assessment provides a suitable basis on which to assess the potential for risks attributable to interaction with the AOI. Whilst HEPA (2026) adopts a background intake in development of some criteria (e.g. soil bioaccumulation criteria considers 25% background intake),

this is likely to be attributable to intakes from other environmental sources such as surface water and this detailed ERA considers abiotic and biotic exposures.

To assess potential exposures to terrestrial biota, by comparison of soil concentrations to bioaccumulation based criteria, the DTEDs have been adopted as consistent with the approach in HEPA (2026) for both mammals and birds. Risks associated with other exposure areas cannot be reliably estimated (e.g. exposures occurring outside of Australia to migratory bird species).

Table 8.4 Adopted PFOS+PFHxS mammalian and avian species assessment end-points

Receptor	Assessment value	Toxicological basis	Assessment value comment
Terrestrial mammals	0.031 mg/kg Terrestrial soil	Adjusted HEPA (2026) soil indirect criterion, based on DTED (0.011 mg/kg.bw/day). Based on the HEPA (2026) section 4.3 of Supporting Document 2.	Screening criteria (i.e. EPC / Screening criteria = simple hazard index (HI)) Concentration in soil above which the dosage of PFOS+PFHxS to sensitive receptors are estimated to cause an exceedance of the DTED. Assumption is 25% intake is attributable to other media/pathways (e.g. surface water ingestion, dust inhalation).
Terrestrial birds	0.14 mg/kg Terrestrial soil	Adjusted CCME (2021) soil indirect criterion for birds, based on DTED (0.386 mg/kg.bw/day). The 0.14 mg/kg screening criterion is based on the American Robin with an assumed 100% intake of invertebrates.	Screening criteria (i.e. EPC / Screening criteria = simple HI) Concentration in soil above which the dosage of PFOS+PFHxS to sensitive receptors are estimated to cause an exceedance of the DTED. Assumption is 25% intake is attributable to other media/pathways (e.g. surface water ingestion, dust inhalation).
Aquatic birds	7.7 µg/kg bw/d Estimated total dietary PFOS+PFHxS dosage	ECCC (2018) TDI, which is adopted in HEPA (2026).	TRV (i.e. estimated multi-pathway dose / TRV = HI). Acceptable dosage of PFOS+PFHxS against which the estimated dosage is compared. Assumption of no background intake as the assessment methodology considers all key pathways of exposure.

9. Risk Characterisation

9.1 General

Risk characterisation has been undertaken in the following sections which have considered exposure assessment approaches specific to the receptor groups identified as part of a potentially complete SPR linkage (**Table 4.2**). The approaches are summarised as follows:

- Terrestrial exposure risks have been characterised by:
  - Low order species (flora and fauna): comparison of the terrestrial soil EPC for PFOS+PFHxS to the HEPA (2026) ecological soil direct contact criterion for PFOS.
  - Higher order (mammalian species): comparison of the terrestrial soil EPC for PFOS+PFHxS to the adjusted HEPA (2026) indirect soil criterion.
  - Higher order (avian species): comparison of the terrestrial soil EPC for PFOS+PFHxS to the adjusted CCME (2021) indirect soil criterion.
- Aquatic exposure risks have been characterised by:
  - Direct toxicity to aquatic species: comparison of the surface water EPCs for PFOS+PFHxS to the lowest NOECs documented in ANZG (2026) for relevant taxa.
  - Indirect toxicity to aquatic species: comparison of the aquatic biota tissues EPCs for PFOS+PFHxS to the FTSB developed in **Section 8.3.2.**
  - Aquatic avian receptor risks: comparison of estimated PFOS+PFHxS dosages to the adopted TDI.

9.2 Categorisation of hazard indexes

Hazard indices have been estimated for each of the receptor groups or ROC assessed in the AOI. The hazard index (HI) was calculated using the following equations.

For receptor groups assessed by comparing media concentrations specific to media concentration-based assessment end-points:

$$HI = \frac{EPC}{criterion}$$

Where: HI is the hazard index

EPC is the estimated exposure point concentration for the medium (µg/L or mg/kg).

$criterion$ is the adopted receptor group assessment end-point (µg/L or mg/kg) as per **Table 8.4**.

For ROC based on comparison of estimated daily doses to toxicity reference values:

$$HI = \frac{TDD}{TRV}$$

Where: HI is the hazard index

TDD is the total daily dose estimated for the ROC as per **Section 7.3.3** in µg/kg.bw/day.

TRV is the toxicity reference value for the receptor group in µg/kg. bw/day as per **Table 8.4**.

Schedule B4 of NEPC (2013) states the following in relation to the HI:

> *'Where the HI for the mixture is less than unity (HI<1), a conclusion that exposure is likely to be within acceptable bounds may be made. When HI>1, it does not necessarily indicate that a site poses an unacceptable risk but it does indicate that either further consideration should be applied, or risk management actions should be recommended. An HI >1 does not necessarily indicate unacceptable risk.'*

Reference is made to Section 12.4 of enHealth (2012) in relation to the interpretation of hazard indices. Whilst it is acknowledged that enHealth (2012) was prepared to guide the assessment of human health risks, the use of a hazard index and hazard quotient (HQ)[13] based approach is common across both ERAs and human health risk assessments.

> *'The HI approach is essentially quite conservative in providing an estimate of cumulative risk, since 'safety factors of between 100 and 10,000 are commonly used to adjust the estimated [NOAEL] to derive the … TDI estimates. This means that the effects of the chemical combinations would need to significantly erode this 100–10,000-fold margin between the TDI and the level where toxic effects begin to occur. When the overall HI is less than 1, it is generally assumed that cumulative risk is within reasonable bounds and that there is no need to undertake a more refined risk assessment. Even when HI is greater than 1, it does not imply that risks are unacceptable, although there is clearly some erosion of the conservatism built into each of the processes of determining components of the HQ calculation (exposure and TDI). When the HI is greater than 10 there is more reason to undertake further investigation of the risks, including an assessment of whether addition of HQs is justified or whether the risk contribution of some of the components is independent.'*

For the purposes of this detailed ERA, the following approach has been adopted with respect to the HI:

- HI ≤1: Risks are low and acceptable.
- HI >1 to ≤10: Risks are potentially elevated.
- HI >10: Risks are elevated.

9.3 Risks in terrestrial environments

9.3.1 Risks to low order terrestrial species (flora and invertebrates)

A HI has been estimated for low order terrestrial species in terrestrial soil across the base (excluding SA04 to SA06). The HIs are presented in **Table 9.1**. Results for SA04 to SA06, where concentrations are significantly higher than other areas of the base, have been assessed on a qualitative basis in **Section 9.3.4**. No other estimated PFOS+PFHxS or PFOA EPCs were found to exceed the adopted direct-contact based terrestrial soil. The site-wide (excluding SA04 to SA06) EPC is compared to the soil criterion in **Table 9.1**, which are consistent with the tier 1 screening outcomes undertaken based on individual source area (**Table 3.7**) which indicate that no individual dataset (other than SA04 to SA06) exceed the adopted criterion.

Table 9.1 Low order terrestrial species (flora and invertebrates)

Area	Soil criterion (mg/kg)	EPC (mg/kg)	Hazard index (-)
Balance of terrestrial areas in the base	1	0.127	0.127

[13] enHealth (2012) uses the term HQ to refer to the relative toxicity of the estimated dose of an individual chemical to an exposed organism. HIs refer to toxicity of the cumulative (added) HQs of multiple individual chemicals. Within this detailed ERA, the HIs estimated represent the cumulative toxicity of PFOS and PFHxS.

9.3.2 Risks to terrestrial mammalian species

Risks to higher order terrestrial mammals have been assessed based on the adjusted tier 1 soil criteria. The adjusted tier 1 soil criteria were adopted to assess potential exposures which may occur to the mammalian species with a reasonable potential to exist at the base, which is limited to small to medium secondary-tertiary omnivores (house mouse, brown and black rat).

The receptor groups assessed, receptor present on base, HEPA (2026) soil criterion, site-wide EPC and HI are presented in **Table 9.2**. The HI has been estimated by dividing the EPC by the adopted soil criterion for the receptor group.

Table 9.2 Terrestrial mammalian risk characterisation

Receptor group	Receptor	Soil criterion (mg/kg)	EPC (mg/kg)	Hazard index (-)
Small secondary (eutherian) omnivore	House mouse	0.031	0.127	3.8
Medium secondary-tertiary (eutherian) omnivore	Brown rat and black rat	0.661	0.127	0.19

9.3.3 Risks to terrestrial avian species

Risks to higher order terrestrial birds have been assessed based on the adjusted tier 1 soil criteria. The adjusted tier 1 soil criteria were adopted to assess potential exposures which may occur to the avian species with a reasonable potential to exist at the base. The assessment has considered criteria which were developed to assess Canadian species, noting that the adopted exposure characteristics and bioaccumulation factors (food intake to bodyweight ratio, DTED and bioconcentration factors (soil->plant and soil->invertebrate). This approach provides an appropriate screening methodology, with potentially sensitive inputs to the criteria discussed in **Section 10**.

The receptor groups assessed, receptor present on base, HEPA (2026) soil criterion, site-wide EPC and HI are presented in **Table 9.3**. The HI has been estimated by dividing the EPC by the adopted soil criterion for the receptor group.

Table 9.3 Terrestrial avian risk characterisation

Receptor group	Receptor	Soil criterion (mg/kg)	EPC (mg/kg)	Hazard index (-)
Primary herbivore	Blue-winged parrot, diamond firetail, gang-gang cockatoo, orange-bellied parrot	6.2	0.127	0.02
Secondary omnivore	Elegant parrot, chestnut-rumped heath wren, plains-wanderer, regent honeyeater, Latham's snipe, Japanese snipe, little curlew, little whimbrel, red knot, knot	0.33	0.127	0.39
Secondary invertivore	Brown treecreeper (south-eastern), south-eastern hooded robin, southern whiteface, white-throated needletail	0.14	0.127	0.91

Consideration is given to assessment of quaternary carnivores as discussed in **Section 6.3**.

9.3.4 Source Area 4 to Source Area 6

Source areas (SA04 to SA06) are identified to contain elevated concentrations of PFAS, particularly PFOS+PFHxS (i.e. EPC estimates up to 88 mg/kg for PFOS+PFHxS). Quantitative estimates of the potential risks posed by these source areas to ecological receptors have not been made, given they occupy a limited areal extent.

This portion of the base is located immediately adjacent to operational infrastructure, and the representative samples relate to shallow soil on the proximity of hardstands or proximal to former chemical storage infrastructure. The presence of low order species is understood to be limited to fringing grasses and it is not anticipated that the affected areas are ecologically important.

Notwithstanding, it is considered that soil in SA04 to SA06 represents a potentially elevated risk to terrestrial ecological receptors including the grasses and any invertebrates present within the soil.

9.4 Risks in ephemeral aquatic environment – RAAF Lake

9.4.1 Aquatic receptor direct exposure risk assessment

Potential risks posed to aquatic receptors by direct exposure have been estimated in **Table 9.4**. The risk estimates are provided separately for each sampling round, given the observed variation in concentrations of PFOS+PFHxS between rounds (**Section 4.3.2**). A review of the estimated EPCs against the toxicity end-points has identified:

- The estimated NOECs range over four orders of magnitude and vary considerably between taxonomic groups (i.e. blue-green algae exhibit low sensitivity compared to crustaceans).
- The NOECs for amphibians, crustaceans, insects, and rotifers were variously exceeded by the estimated EPCs for RAAF Lake across the available sampling rounds.

Table 9.4 Direct risks to aquatic organisms in RAAF Lake (µg/L)

Taxonomic group[5]	RAAF Lake			Spring/Summer 2018			Spring/Summer 2020			Spring/Summer 2024		
	EPC	NOEC	HI	EPC	NOEC	HI	EPC	NOEC	HI	EPC	NOEC	HI
Plants/algae		300			300	0.09		300	0.14		300	0.66
Amphibians		10			10	2.7		10	4.1		10	20
Crustaceans		90.6			90.6	0.30		90.6	0.45		90.6	2.2
Insects	233[1]	0.23		27[2]	0.23	117	41[3]	0.23	178	198[4]	0.23	860
Molluscs		3000			3000	0.009		3000	0.014		3000	0.066
Flatworms		200			200	0.14		200	0.21		200	0.99
Rotifers		100			100	0.27		100	0.41		100	2.0

[1] 95% UCL (range 1.4 to 460 µg/L). It is noted the 95% UCL for all data is higher than the 95% UCL estimated for each individual sampling round indicating that the data are multimodal.

[2] Maximum value (range 1.4 to 27 µg/L)

[3] Maximum value (range 23.6 to 41.2 µg/L)

[4] 95% UCL (range 2.3 to 460 µg/L)

[5] Fish have been excluded based on their anticipated absence from RAAF Lake.

In reviewing the data, as discussed in **Section 3.5.2**, it is observed that the available sampling rounds appear to have specifically targeted areas of RAAF Lake which are proximal to known areas of PFAS discharge. For example, the spring/summer 2020 data was targeted toward the portion of RAAF Lake which is closest to the former FTA, which has the likely effect of positively biasing the EPCs.

The HIs for each taxonomic group were consistent in the 2018 and 2020 sampling rounds, with low and acceptable risks to all taxa except for amphibians (HI: 1-10) and insects (HI: >10). Risks to taxa in the 2024 sampling round were potentially elevated for amphibians (HI: >10), insects (HI: >10), crustaceans (HI: 1-10) and rotifers (HI: 1-10) with all HIs increased compared to the 2018 and 2020 sampling rounds, consistent with the higher EPC.

9.4.2 Aquatic receptor indirect (bioaccumulation) risk assessment

As discussed in **Section 3.4.7**, concentrations of PFOS in surface water were identified to exceed the generic tier 1 99% spp. DGV for PFOS in fresh and marine water within RAAF Lake. Potential aquatic receptors were identified as summarised in **Section 5.5.2**. On weight of evidence, it appears as though RAAF Lake contains no high-order aquatic species. No further assessment of bioaccumulation risks to aquatic species is presented for RAAF Lake on this basis.

9.4.3 Risks to aquatic avian receptors

The estimated TDDs and HIs for each of the avian ROC are presented in **Appendix D**. The calculated HIs are provided in **Table 9.8**.

Table 9.5 Estimated hazard indices for aquatic avian receptors in RAAF Lake

Trophic Level / Feeding Guild	Representative ROC	RAAF Lake[1,2]
Resident aquatic birds		
Primary herbivore	Black swan	1.2
Secondary-tertiary invertivore	Australasian shoveler	0.25
Tertiary-quaternary invertivore/ piscivore	Little egret	0.013
Tertiary-quaternary invertivore/ piscivore	Caspian tern	0.011
Quaternary piscivore	Osprey	0.01
Migratory/partly migratory aquatic birds		
Secondary-tertiary invertivore	Double-banded plover	4.4
Tertiary-quaternary invertivore/ piscivore	Little tern	0.027

[1] Based on direct contact exposures to surface water and sediment only.

[2] Whilst RAAF Lake risks have been estimated on the basis of all data and specific seasonal data (2018, 2020 and 2024), the PFAS dosages are driven by sediment intakes which have not been adjusted for seasonal/monitoring round influences and accordingly the estimated risks are consistent across all data and seasonal data.

The calculations in **Table 9.5** indicate potentially elevated risks to two ROC (i.e. primary herbivore – black swan, secondary-tertiary invertivore – Double-banded plover). These risk estimates are relevant based on the following:

- JBS&G has observed evidence of birds when conducting sampling from RAAF Lake.
- The PFOS+PFHxS concentrations detected in surface water and sediment are highly elevated (i.e. multiple orders of magnitude above relevant tier 1 screening criteria).

Risks being low and acceptable for the other ROC is a function of these ROC having both lower AUFs and sediment ingestion rates in comparison to the primary herbivore and secondary-tertiary invertivore. The calculations in **Table 9.5** only consider abiotic exposures. The significance of this is further evaluated in **Section 10.3.2**. The risk estimates have considered data representativeness and other uncertainties documented throughout the report, particularly in **Section 3.5.2, Section 4.3.2.3** and **Section 4.3.3.3**. In general, where uncertainties were identified the parameters adopted to estimate risks have considered the most conservative of the potential options (e.g. adoption of 95% UCLs in place of dataset means), with the effect of alternative parameter adoption considered in more detail in **Section 10.**

9.5 Risks in aquatic environment – Port Phillip Bay

9.5.1 Direct contact – aquatic species

Concentrations of PFOS (as well as PFOS+PFHxS) in surface water were not identified to exceed the generic tier 1 95% spp. DGV for PFOS. HIs have been calculated using the same methodology adopted for RAAF Lake for the sake of comparison, as presented in the table below.

Table 9.6 Direct risks to aquatic organisms in Port Phillip Bay (µg/L)

Taxonomic group	EPC	NOEC	HI
Plants/algae	0.057	300	0.00019
Amphibians		10	0.0057
Crustaceans		90.6	0.00063
Insects		0.23	0.25
Molluscs		3000	0.000019
Flatworms		200	0.00029
Rotifers		100	0.00057
Fish		4.0	0.014

The available sample locations are spread over the entire southern front of the base. Concentrations of PFOS+PFHxS in surface water appear to be potentially elevated proximal to the former FTA (SA01) compared with the southwestern portions of the inshore and, as such, risks to receptors proximal to the former FTA would be expected to be marginally higher than receptors in the southwestern portion. This assessment is made qualitatively on the basis of limited individual samples and sampling rounds and should be considered indicative only.

9.5.2 Indirect contact (bioaccumulation) risks – aquatic species

Port Phillip Bay represents a potential exposure environment for higher order aquatic species. The presence of these species has been confirmed by direct sampling (e.g. flounder). An assessment of the indirect contact (bioaccumulation) risks has been made by comparison of the measured higher order fish (predator) fish tissue concentrations (**Table 7.2**) against the fish tissue screening benchmarks developed in **Section 8.3.2**. The calculated HIs are presented in **Table 9.7**.

It is noted that the estimated risks would not materially change by adoption of the alternative approach to fillet sample concentrations to whole body concentrations conversion discussed in **Section 7.3.1**. The HI calculations indicate that risks are low and acceptable for this scenario.

Table 9.7 Port Phillip Bay aquatic predator hazard indices (by receptor-group)

Receptor group	Concentration (mg/kg)	FTSB (mg/kg)	HI – Port Phillip Bay
Prey fish	0.086	1.2	0.072
Predator fish	0.26	1.2	0.22

9.5.3 Risks to aquatic avian receptors

The estimated TDDs and HIs for each of the avian ROC are presented in **Appendix D**. in the calculated HIs are presented in **Table 9.8**.

Table 9.8 Estimated PFOS+PFHxS hazard indices for aquatic avian receptors

Trophic Level / Feeding Guild	Representative ROC	HI - Port Phillip Bay
Resident aquatic birds		
Primary herbivore	Black Swan	0.2
Secondary-tertiary invertivore	Australasian Shoveler	0.33
Tertiary-quaternary invertivore/ piscivore	Little Egret	2.2
Tertiary-quaternary invertivore/ piscivore	Caspian Tern	2.0
Quaternary piscivore	Osprey	0.85
Migratory/partly migratory aquatic birds		
Secondary-tertiary invertivore	Double-banded Plover	0.67
Tertiary-quaternary invertivore/ piscivore	Little Tern	2.2

The calculations in **Table 9.8** indicate potentially elevated risks to three ROC (i.e. two resident and one migratory tertiary-quaternary invertivore/piscivores). These risk estimates are relevant based on the following:

- Avian ROCs are frequently observed within the AOI, and their presence is further indicated by online databases.
- These ROC may consume aquatic biota from the AOI which is contains PFOS+PFHxS at concentrations considerably above the BGVs (i.e. up to 0.26 mg/kg against BGVs or 0.0082 mg/kg for avian species).
- Proportional reduction of estimated dietary intakes with reasonably justifiable AUFs is not sufficient to cause the estimated risks to reduce to low and acceptable levels due to the elevate concentrations.

Risks being low and acceptable for the other ROC is a function of these ROC having both lower AUFs and lower ingestion fish ingestion rates. The risk estimates have considered data representativeness and other uncertainties documented throughout the report, particularly in **Section 3.5.2** which are further considered in **Section 10.**

9.6 Summary of risk characterisation

A summary of potential risks to sensitive receptors is provided in **Table 9.9**. this is exclusive of those receptors which were found not to be part of a potentially complete SPR linkage in the CSM. Risks have been grouped in accordance with the categories discussed in **Section 9.2**.

Table 9.9 Risk characterisation summary

Receptor	Hazard categories for ecological receptors		
	Terrestrial areas[2]	Port Phillip Bay	RAAF Lake
Aquatic receptors			
Plants/algae	-	<1	<1 (all rounds)[4]
Amphibians	-	<1	1-10 (2018, 2020) >10 (2024)[4]
Crustaceans	-	<1	<1 (2018, 2020) 1-10 (2024)[4]
Insects	-	<1	>10 (all rounds)[4]
Molluscs	-	<1	<1 (all rounds)[4]
Flatworms	-	<1	<1 (all rounds)[4]
Rotifers	-	<1	<1 (2018, 2020) 1-10 (2024)[4]

Receptor	Hazard categories for ecological receptors		
	Terrestrial areas[2]	Port Phillip Bay	RAAF Lake
fish	-	<1	-[3]
Higher order aquatic species	-	<1	-[3]
Terrestrial species[1]			
Terrestrial plants and invertebrates	<1	-	-
Terrestrial mammals	1-10	-	-
Terrestrial birds	<1[1]	-	-
Aquatic birds			
Resident primary herbivore (black swan)	-	<1	<1[1]
Resident secondary-tertiary invertivore (Australasian shoveler)	-	<1	<1[1]
Resident tertiary-quaternary piscivore/invertivore (little egret)	-	1-10	<1[1]
Resident tertiary-quaternary piscivore/invertivore (Caspian tern)	-	1-10	<1[1]
Resident quaternary piscivore (osprey)	-	<1	<1[1]
Migratory secondary-tertiary invertivore (double-banded plover)	-	<1	1-10[1]
Migratory tertiary-quaternary piscivore/invertivore (little tern)	-	1-10	<1[1]

[1] Based on direct contact exposures to surface water and sediment only.

[2] Excluding SA04 to SA06 as assessed qualitatively.

[3] No evidence of fish has been identified in RAAF Lake.

[4] Risk estimates to aquatic species in RAAF Lake vary by sampling round.

10. Sensitivity Assessment

10.1 General

The process of undertaking a quantified ecological risk assessment involves a number of decisions in relation to problem identification and risk characterisation which ultimately affect the overall assessment outcomes.

In general, where uncertainties have been identified throughout the assessment process, a preference has been to adopt the more conservative potential option(s) in order to ensure that, in the absence of complete information, the likelihood that potential risks exist which have not been identified is low. Notwithstanding, given the interaction between parameters, consistent selection of the most conservative parameters will have the effect of compounding the error and result in an unnecessarily conservative assessment.

A sensitivity assessment has been conducted in the subsequent sections which seeks to identify potentially sensitive assumptions/parameters which have been adopted as part of the risk assessment process. The purpose of identifying sensitive assumptions/parameters is to inform an assessment of the extent of uncertainties and errors which must be considered as part of the conclusions and recommendations of the assessment.

The assessment of uncertainties has been undertaken in general accordance with the key steps of the ERA as defined in **Section 1.4.**

10.2 Problem identification

In scoping the problem which formed the basis of the detailed risk assessment, a number of assumptions have been made which have the potential to introduce uncertainty to the conclusions. Each of these areas is discussed qualitatively as follows:

- JBS&G has relied upon information provided in prior assessments to scope the problem. Previous investigations, principally Senversa (2017), Senversa (2020), AECOM (2022) and works undertaken as part of this detailed ERA (**Section 3.1.5**) have provided site setting, site history and empirical data which have been used to identify which parts of the receiving environment warranted detailed risk assessment (i.e. AOI selection), and provided empirical data used to estimate concentrations of COPCs in the environmental media and assess potential temporal variation. These reports have been subject to a comprehensive review process as part of Defence's procedures in commissioning and publishing contamination investigations, including independent third-party reviews by a Technical Advisor (TA). JBS&G considers that the use of prior information in this instance has reduced the level of uncertainty in the detailed ERA.
- Discretisation of the environment includes a simplifying set of assumptions around the dynamics of PFAS contamination within the receiving environment. This step involves identifying specific areas of the receiving environment which are subject to potentially significant input of PFAS from the base, and further discretising these areas based on PFAS loading, effects of dilution and the likelihood that these areas will represent a distinct potential for risk to the identified receptor groups. This step also feeds into the conclusions which can be made in relation to a specific area as the ultimate risk estimates are based on media in a specific AOI. The identified AOI are consistent with those identified in prior documentation, represent distinct environments with different receptor exposure potential, and are considered appropriate for the purpose of the risk assessment.
- Identification of the ecological values and ecological conditions of the receiving environment has been undertaken on the basis of reviewing a range of publicly accessible documentation, including policies and ecosystem assessments. There are a range of factors which may affect the suitability of the AOI to provide for the protected environmental values (e.g. climate change and habitat destruction). The review is considered appropriate within the current regulatory / environmental context to identify the values against which potential PFAS contamination requires to be assessed.

10.3 Identification or risk drivers (tier 1 Screening)

10.3.1 Availability of tier 1 screening criteria

Tier 1 screening has been undertaken on the basis of the previous investigation data and the AOI nominated in the preceding two steps. Tier 1 screening is required to identify the likely risk driving environmental media, assessment endpoints and COPCs for detailed risk assessment. The tier 1 screening process involved identification of suitable tier 1 screening guidelines, identification of potentially affected receptor groups and the contaminants which are likely to drive risk estimates. The tier 1 screening process was undertaken in accordance with current Australian Government guidance.

It is noted that tier 1 screening criteria are not available for a range of environmental media and a range of relevant environmental end-points, specifically:

- The Australian Government does not provide guidance for constituents other than PFOS, PFHxS and PFOA to screen potential risks to ecological receptors.
- The Australian Government does not provide guidance to assess risks to all receptors in all potentially relevant exposure scenarios. Further, criteria are not available to assess bioaccumulation risks (e.g. soil->plant->herbivore->receptor) to higher-order receptors with the explicit exception of terrestrial mammalian receptors (e.g. spotted tailed quoll via indirect soil bioaccumulation criteria).
- The Australian Government does not provide PFAS criteria for sediment.

The absence of available criteria represents Australian Government policy decisions based on the state of the science. It is considered that assessment of other PFAS compounds and receptors is not able to be undertaken in a scientifically defensible manner at this point in time. It is noted that PFOS+PFHxS represents the majority of the detected mass of PFAS in soil, surface water, sediment and aquatic biota. On this basis, any non-PFOS+PFHxS compounds are considered likely to represent a lower potential for risk to receptors. The absence of sediment criteria is not considered to be significant as sediment has been considered as a source of exposure to ROC.

HEPA (2026) provides a direct contact soil criterion for PFOA which was developed to be protective of reptiles. The criterion is based on a LOAEL of 0.05 mg/kg in soil divided by an uncertainty factor of 10. With respect to PFOS and PFHxS, no protection of reptiles based criteria are presented in the HEPA (2026) or Canadian Guidance for reptiles. In absence of a reliable screening criterion being available within Australian guidance for the assessment of direct or indirect exposure of reptiles, consideration is given to potential reptile exposure in the subsequent sections of this sensitivity assessment to demonstrate that the outcomes of the risk assessment would not be materially different if reptiles were to be adopted as a receptor group.

10.3.2 Reliance on empirical data

JBS&G (2024) was designed to ensure that empirical data were available for all relevant environmental media in the AOI. The empirical datasets are characterised as varying in size, variability and seasonality and that these factors affect the level of confidence in the estimates of EPCs. Notwithstanding, JBS&G considers that the use of empirical data is generally preferable to alternative methods (e.g. use of bioaccumulation factors).

JBS&G (2024) proposed the potential supplementation of empirical data with theoretical estimates of concentrations based on site-specific and/or literature based PFAS uptake ratios using BAFs alongside collection of empirical biota data. The factual reports documented site-specific uptake ratios for PFOS and compared them against the literature values summarised in SERDP (2020). The uptake ratios for PFOS were generally comparable to the values anticipated within Port Phillip Bay and, as such, there was no need to undertake bioaccumulation modelling to supplement the dataset for the aquatic environment. No empirical biota data is available within RAAF Lake and, accordingly, no site-specific uptake ratios could be estimated.

JBS&G (2024) further proposed the potential use of bioaccumulation factors to model concentrations of PFAS in terrestrial invertebrates. Since finalisation of JBS&G (2024), HEPA (2026) was revised to include indirect soil-

based criteria which consider bioaccumulation modelling (soil-> plant, soil-> invertebrate and soil->worm). The values and approach published within HEPA (2026) were considered appropriate to facilitate use of the indirect criteria to screen for potential bioaccumulation risks in place of undertaking independent bioaccumulation modelling using site data and development of a site-specific food-web model. Comparison of estimated EPCs for soil to the adjusted indirect soil criteria identified a potentially elevated risk to sensitive mammalian receptors (small omnivorous/invertivorous mammals) in some areas. Collection of terrestrial biota is not considered to be critical given the PFOS+PFHxS concentrations which have been detected in soil in the areas which indicate potentially elevated risks.

No benthic invertebrate PFAS concentrations have been measured in RAAF Lake and evidence has been identified that brine shrimp and gastropods are present. A potential alternative method to estimating representative concentrations could be implemented by modelling the concentration of PFOS+PFHxS in benthic invertebrates within RAAF Lake. It is considered that, given the wide range of biota-sediment accumulation factors (BSAFs) reported in literature, that the potential range of modelled values would be very broad and undermine confidence in the assessment outcomes. Given the findings of the abiotic screening (i.e. potentially elevated risks) and the uncertainties related to the use of BAFs (particularly for benthic invertebrates), it is considered the attempting to model brine shrimp and gastropod concentrations to calculate risks to avian consumers is not necessary.

It is noted that the concentrations measured in predatory fish samples relate to sub-samples of individual fish fillets rather than the whole-body. An approach has been implemented to convert fillet to whole-body concentrations using an empirical relationship (Levanduski et al., 2024). It is considered that the absence of whole-body concentrations introduces an uncertainty but that the magnitude of the uncertainty is likely to be low in comparison to other sources of error. Further, the use of conversion factors is an appropriate means to ensure that the measured fillet sample concentrations, which are likely to be lower than the whole body concentrations, do not artificially reduce the risk estimates. It is noted that adoption of the alternative empirical equation presented by Rudel et al. (2022) would have the effect of marginally increasing (by less than 25%) the risk estimate for large piscivores (up to a HI of 2.7 for the little egret, and cause the osprey's estimated risk to increase to 1.1). It is considered that this level of increase is not meaningful in the context of the other potential sources of error in the assessment such as the maximum probable error (MPE) on adopted EPCs (see **Section 10.3.3**).

10.3.3 Estimated exposure point concentrations

Influence on Assessment

EPCs were required to be estimated to compare against screening criteria and to represent media concentrations at the point of exposure to receptors. The effect of adopting alternative EPCs can be summarised as:

- Identification of alternative media and risk driving contaminants for detailed risk assessment (i.e. different selections).
- Alternate concentrations of contaminants in environmental media. The effect of alternative concentrations in environmental media is directly and linearly linked to the exposure dose attributable to that medium (i.e. direct linear effect on pathway specific HI).

Quantification of EPC conservatism/error

EPCs have been estimated based on statistical evaluations of empirical data. A key measure of uncertainty in sampling programs is the difference between the actual mean concentration (which represents the best estimate of the true average) and the adopted EPC (which represents a conservative mean with a quantified confidence interval (i.e. 95% UCL) or the maximum of the dataset). This is referred to as the maximum probable error (MPE). A lower MPE correlates to greater confidence in estimates.

For datasets with a quantified confidence interval (i.e. 10 or more detections) the MPE can be estimated as per NSW EPA (2022) *Contaminated Land Guidelines: Sampling design part 1 - application*, whereby the confidence interval (which is the 95% UCL less the mean concentration) is divided by the dataset mean:

$$MPE = \frac{95\%\ UCL - \bar{x}}{\bar{x}}$$

A similar approach has been used for datasets where the maximum value has been adopted as the EPC, though the confidence in the error margin is not able to be quantified using statistical methods. This simply demonstrates the level of conservatism adopted in using the maximum value in place of the dataset mean.

$$MPE' = \frac{maximum - \bar{x}}{\bar{x}}$$

JBS&G has quantified the MPE and MPE' for the datasets and presented the results in **Appendix B.** This has been limited to PFOS+PFHxS only, as the risk driving contaminant group. The estimates are summarised in **Table 10.1**.

There is no maximum MPE above which the investigation dataset error(s) would be too high to be relied upon to inform the risk estimates. The acceptability of the MPEs depends on how sensitive the screening process and ultimately the risk estimates are to changes based on refining confidence intervals by additional sampling.

Table 10.1 Summary of MPEs by media and AOI

AOI	Sediment	Surface Water	Aquatic Vegetation	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish
	%	*%*	*%*	*%*	*%*	*%*	*%*
Port Phillip Bay - Foreshore	135%[2]	-[3]	58%[2]	106%[2]	-[3]	-[3]	-[3]
Port Phillip Bay - Inshore	105%[2]	32%[2]	127%[2]	46%[2]	229%[1]	132%[1]	64%[2]
RAAF Lake	49%[2]	175%[2]	-[3]	-[3]	-[3]	-[3]	-[3]
RAAF Lake (2018)	-	*93%[1]*	-	-	-	-	-
RAAF Lake (2020)	-	*87%[1]*	-	-	-	-	-
RAAF Lake (2024)	-	*62%[2]*	-	-	-	-	-

[1] MPE' represents the relative difference between the maximum and mean concentration.

[2] MPE represents the relative difference between the 95% UCL and mean concentration.

[3] Data for medium not available in area.

Review of EPC conservatism/error effect

The potential effects of alternate EPC selection are discussed as follows:

- Sediment:
  - The MPE for sediment in the foreshore and the inshore were 135% and 105% respectively indicating that the adopted EPC is approximately double the dataset mean. Sediment PFAS results were not screened against tier 1 criteria (i.e. due to no criteria being available) and did not affect the screening process. The overall contribution of sediment to estimated risks for the foreshore and the inshore were generally low compared with biota, indicating that this potential overestimate is not likely to materially affect the risk outcomes.
  - The MPE for sediment in RAAF lake was 49%, which is considered to be relatively low. Sediment PFAS results were not screened against tier 1 criteria (i.e. due to no criteria being available) and did not affect the screening process.

- Surface water:
    - The estimated MPE for surface water in Port Phillip Bay was 32% indicating that the estimated EPC was close to the sample mean concentration. JBS&G notes that the difference between the average concentration and the EPCs for surface water would not have caused an alternative selection of AOI for detailed assessment (i.e. no effect on screening). This indicates that the dataset is not substantially affected by EPC estimate errors.
    - The surface water MPE estimated for RAAF Lake on the basis of all data was relatively high (175%). It is considered that this is likely the result of the dataset not comprising statistically random data (i.e. there are systematic biasing effects causing multi-modal data). As such, the dataset was considered on the basis of individual sampling rounds (2018 to 2024). The individual sampling rounds each exhibited a considerably lower MPE, which indicates that the sampling rounds had a material effect on the estimated concentrations.
    - Adopting alternate surface EPC to estimate risks to ecological receptors in RAAF Lake has the effect of changing the risk by up to an order of magnitude (based on 27 µg/L in 2018 vs. 198 µg/L in 2024) which causes the proportion of the estimated risks to avian ROC attributable to abiotic media to increase from a range of 1-22% up to 10-66%. This is considered material to the estimated risks. However, both ends of the range result in potentially elevated risks to avian ROC. A potential for risks to aquatic species were identified (benthic invertebrates only) based on both the lower and upper surface water concentration range in RAAF Lake.
- The estimated MPEs for aquatic biota ranged from 58% to 229% and were variously based on both maximum and 95% UCL values. The maximum values were typically substantially more different to the mean concentrations than were the 95% UCL values. Notwithstanding, the effect of alternative parameter adoption is at most linear for any given receptor. The adopted EPCs have resulted in risk estimates ranging from:
    - Port Phillip Bay Foreshore: 1.58 to 2.06 above mean-based estimates.
    - Port Phillip Bay Inshore: 1.46 to 3.29 above mean-based estimates.
- With consideration of the above, whilst the adopted values are likely to overestimate the extent of exposure, the magnitude of the effect is relatively low, and acceptable for the purposes of this detailed ERA.

10.4 Receptor identification

A process of receptor identification was undertaken as described and detailed in **Section 5**. Selection of receptors of concern influences the investigation outcomes as follows:

- Identification of receptors groups which are potentially at risk (driven by the tier 1 screening process), which inform the focus of the detailed review of receptors.
- Identification of the range of species within receptor groups by review of field observations and accessible databases, which provides the range of receptors from which to nominate representative ROC.
- Identification of representative ROC which are likely to adopt the highest potential for exposure from each of the identified receptor groups.

The process undertaken to identify the receptor groups (e.g. mammals and birds) is generally common across ecological environments. The tier 1 screen process undertaken subsequently relies upon Australian Government guidance documents and comparison of EPCs to criteria to identify ecological groups which are potentially at risk.

Identification of the range of species was undertaken by review of investigations completed by previous consultants, including specialist ecological consultants, as well as supplementary reviews of databases maintained by the Australian and Victorian Governments for the purpose of supporting conservation efforts. JBS&G considers that the combination of sources is appropriate to the identification of species potentially present within the AOI.

JBS&G notes that there were numerous avian species which were considered to be potentially exposed within the AOI, consistent with the status of some proximal areas as valuable bird habitat and protected wetlands. Mammalian species were far less abundant, with no conservation significant species identified with a reasonable potential to obtain a significant exposure within the AOI.

Selection of the representative ROC was undertaken by identifying the most exposed species representing various trophic levels, and feeding guilds. This process comprised assigning each receptor a bodyweight range from Birdlife Australia (2023) and identifying the potentially applicable Nagy KA (2001) feeding groups (e.g. all birds, marine birds and pelecaniformes). The allometric equations were then processed for each species to evaluation which group designation resulted in the highest food intake to bodyweight ratio. The representatives with the highest food intake to bodyweight ratio were generally adopted as the representative ROC for their group. It is noted that this process is intentionally conservative to ensure that the ensuing risk calculations would overestimate the risks for the relevant receptor group. This is considered appropriate and consistent with the intention of the risk assessment process to be protective of the reasonable maximum exposed population(s).

The effect of adopting alternative representatives of groups would necessarily result in a reduced food intake to bodyweight ratio and linearly reduce the estimated risk levels. For example, the group identified as resident/nomadic quaternary carnivorous birds includes five species and is represented by the osprey with an estimated food intake to bodyweight ratio of (0.3 g(food) / g(bodyweight) per day). The osprey's estimated food intake to bodyweight ratio is approximately 50% higher than the balance of examples of this trophic level/guild (ranging from 0.2 to 0.23 g(food) / g(bodyweight) per day). The FI:BW ratios are presented for all mammals and birds screened in **Appendix B**.

10.5 Exposure estimation

10.5.1 Benthic organisms

Benthic organisms are present in inshore and foreshore portions of Port Philip Bay as well as in RAAF Lake. Benthic organism exposure to PFAS present in sediment and porewater is distinct from the potential exposures occurring from surface water in these environments. Accordingly, the use of surface water EPCs alone may not fully represent the exposure for these receptors.

As discussed in **Section 3.4.6** and **Section 3.4.8**, there are no Australian criteria for the assessment of potential exposure risks to benthic organisms based on sediment or porewater PFAS concentrations. Literature based criteria have been proposed by a range of researchers however these have not been adopted in HEPA (2026). Accordingly, it is considered that it is the Australian Government does not currently consider there is sufficient information presented to support development of criteria which would facilitate such an assessment being made in a defensible manner.

Alternative approaches could be considered, including theoretical phase partitioning based approaches, whereby the equivalent concentration in surface water could be estimated based on the measured sediment/porewater concentrations and the equivalent surface water concentration compared to the ANZG (2026) criteria. This approach would be overly reliant on a range of range of assumptions which introduce considerable uncertainties.

As such, means to readily assess the potential exposure of benthic organisms to PFAS in sediments/porewater have not been identified and the assessment of these exposure remains a data gap at the time of this report. However, given the identification of risks to some species in both RAAF Lake and Port Philip Bay due to

exposures to surface water (or combined pathway exposures to surface water and biota), it is considered that this uncertainty does not materially affect the outcomes of the risk assessment (i.e. that potential risks are identified based on the assessment of other media exposures which require to be considered in the management of the site).

10.5.2 Terrestrial mammal and avian exposure

Potential exposures to terrestrial mammalian and avian species were assessed by comparison of soil EPCs to adjusted tier 1 screening criteria. The adoption of adjusted tier 1 screening criteria has considered a number of factors which have a consequential influence over the assessment outcomes, including:

- The estimated soil PFAS concentrations were based on the available dataset. The dataset was discounted of irrelevant data including soil present at a depth of >0.5 m bgl, and soil present under hardstand slabs. The dataset was further discounted of soil samples collected from specific (targeted) locations which are likely to be affected by highly localised increased concentrations (e.g. drainage line in receipt of discharges from source area). In general, the removal of these datapoints has had the effect of lowering the estimated EPC, however it is considered appropriate as the assumptions on which 95% UCL estimates are based require that the sampled unit is relatively consistent across spatial and temporal dimensions. The estimated EPCs are considered appropriate for the purposes of assessing broad-scale bioaccumulation risks to higher-order species.
- HEPA (2026) has developed soil-bioaccumulation criteria for the protection of a range of Australian mammals representing specific feeding guilds and trophic levels. JBS&G has removed some of the criteria based on more sensitive feeding guilds and trophic levels due to their overall absence from the site (e.g. fat-tailed dunnart). This is considered an appropriate site-specific approach and reflects the receptor identification undertaken in **Section 5.5.4** which found that these such mammalian species were not likely to be present on the base. Consideration of the most sensitive mammalian indirect soil criterion would have the effect of estimating risks to mammalian species approximately 10x higher than have been estimated herein.
- An avian soil indirect bioaccumulation criterion has been adopted from CCME (2021) to assess terrestrial avian receptors. The most sensitive criterion is based on the assessment of an omnivore which obtains a portion of its diet from invertebrates. It is noted that there are potentially fully invertivorous birds which may access the base (e.g. hooded robin), which the CCME (2021) may not be protective of where an AUF of 1 is assumed. The CCME (2021) further adopts a DTED which incorporates a lower safety factor (2) than is adopted in HEPA (2026) to assess mammals under the soil-bioaccumulation criterion (10). These factors introduce a level of uncertainty to the extent of protection afforded terrestrial invertivorous birds. However, it is considered these uncertainties are not uniquely material to the assessment with consideration given to the range of other potential errors and conservative assumptions made throughout the assessment (e.g. conservative bioaccumulation estimates in development of the CCME (2021) criteria and adoption of a 95% UCL in place of a mean-based estimate). Adoption of a safety factor consistent with the mammalian DTED adopted by HEPA (2026) would result in the estimated risks to terrestrial receptors increasing by a factor of 5 and causing the secondary consumer (both omnivores and invertivores) to increase above a HI of 1. This would result in estimated risks as consistent with the mammalian species and so would not have a material effect on the assessment outcomes (i.e. additional terrestrial receptor risks identified but not uniquely elevated).
- No adjustment has been made to the CCME (2021) avian exposure parameters to account for a potentially higher food intake to bodyweight ratios. Consideration of the avian food intake to bodyweight ratio adopted by HEPA (2026) (0.98 kg/kg.bw/day) would have the effect of increasing the estimated risks to terrestrial birds by approximately a factor of 4x and causing the secondary consumer (both omnivores and invertivores) to increase above a HI of 1. This would result in estimated risks as consistent with the terrestrial mammalian species and so would not have a material effect on the assessment outcomes (i.e. additional terrestrial receptor risks identified but not uniquely elevated).

- A set of screening criteria could be developed on the basis of the TRVs adopted in HEPA (2026) for the BGV (i.e. 0.0077 mg/kg.bw/day for avian species and 0.0011 mg/kg.bw/day for mammals). This would have the effect of reducing the adopted soil criteria, and conversely increasing the estimated risks, for mammals by approximately 10x and the soil criteria for avian species by 50x. JBS&G notes that HEPA (2026) did not adopt these TRVs to develop the criteria, potentially due to the effect of layering uncertainties causing unnecessary conservatism. The criteria do not account for a range of mitigating factors including, principally, proportional AUFs which would apply to key receptors on the base and are based on conservative inputs to estimate biota concentrations (e.g. bioaccumulation factors). It is considered that the adoption of the DTED is appropriate and consistent with national guidance where dietary source concentrations have not been measured.

10.5.3 Aquatic bird exposure

The exposure estimation was undertaken as described and detailed in **Section 7**. The exposure estimation was undertaken in accordance with preeminent international guidance documentation including US EPA (1993) and SERDP (2020). The dose estimation has considered a number of factors which have a consequential influence over the assessment outcomes, including:

- The potential exposure to PFAS in porewater within the Port Phillip Bay foreshore was not directly quantified due to potential dataset representativeness issues and the likely minimal quantity of porewater which would be ingested by ROC. The porewater dataset relates to water which is present at a depth under the ground surface which is not likely to be regularly encountered by receptors during typical foraging/predation. The effect on risk estimates which would result from inclusion of an incidental intake of porewater would be negligible compared to the intakes attributable to biota and accordingly its exclusion from the risk estimates has not affected the outcomes. Further, the process of drying sediment samples prior to analysis has the likely effect of causing dissolved phase PFAS to deposit onto sediment samples and, as such, the analysis of sediment samples likely represents the combination of both sorbed-phase and dissolved porewater phase PFAS. The estimated incidental exposure to sediment accordingly represents the exposure which occurs to both dissolved (porewater) and sorbed-phase PFAS.
- There is the potential for alternative assumptions in relation to the water, food and sediment intake rates to affect the outcomes of the assessment. However, the intake rates have been based on reputable available literature for each of the ROC, and adoption of parameters as consistent with the preeminent guidance (US EPA (1993) and Nagy KA (2001)).
- HEPA (2026) identifies that migratory species may exhibit higher food intake to bodyweight ratios during periods in which they have a higher caloric intake requirement. Periods of relatively high food intake (i.e. hyperphagia) represent a source of uncertainty in the exposure assessment. Allometric food intake equations used to estimate food intake rates were obtained from Nagy KA (2001). Thes equations do not explicitly account for periods of hyperphagia.

  Episodic hyperphagia may result in elevated PFAS intake rates compared to dietary averages. These periods may contribute disproportionately to overall body burden, noting that the likely periods of hyperphagia will be short (e.g. some weeks prior to seasonal migration). Where hyperphagia occurred for short periods, it is considered that the overall effect on the average intakes of PFAS for relevant migratory receptors would not be materially altered[14]. However, in absence of reliable quantitative information which can support such an assessment being made, it is acknowledged that there is an uncertainty in the quantity additional PFAS intake which may occur. The sensitivity analysis indicates that the magnitude of the effect is likely to be small compared with other sources of error and is likely

[14] e.g. 4 weeks at elevated intake of 4x typical feeding rates over a 26 week residency would result in an additional estimated intake equivalent to 38 weeks, over the 26 week residency and may increase risk estimates by ~45%.

offset by other conservative assumptions made throughout the risk assessment (e.g. adoption of low bodyweights to maximise the bodyweight to food intake ratios used to estimate risks). On the basis of the above, uncertainty is not considered likely to materially alter the overall conclusions of the ERA.

- Alternative assumptions in relation to the proportion of dietary intake attributable to aquatic food groups obtained from site water bodies could be adopted which could increase or decrease the estimated risks. However, alternating these exposure assumptions would have a small effect on the estimated risks when compared to the compounding conservative assumptions adopted to estimate EPC for food groups. In general, there is a lack of scientific data which can substantiate selection of specific dietary intakes for avian species identified by the receptor selection process. The effects of alternate dietary intakes are directly related to the concentrations in different media and are discussed following:
    - Herbivores were assumed to consume 100% of their diet from aquatic plants, which is considered appropriate.
    - Omnivores (primarily invertivorous) were assumed to consume approximately equal proportions of vegetation, pelagic and benthic invertebrates. The proportion of vegetation to invertebrate intake is a sensitive parameter noting that invertebrate EPCs were generally 2 to 10x higher than vegetation. It is noted that exclusive invertivores were also assessed which would represent the exposure of omnivorous which preferentially eat invertebrates.
    - Invertivores were assumed to consume the majority of their food in equal parts pelagic and benthic invertebrates, with a minor designation of their intake attributed to vegetation. The concentrations estimated in pelagic and benthic invertebrates were relatively similar, indicating that altering the proportional intake of benthic vs. pelagic invertebrates would not materially affect the risk outcomes (i.e. ranging from 0.0082 mg/kg to 0.023 mg/kg PFOS+PFHxS).
    - Carnivores/piscivores were assumed to consume between 50% and 80% of their food from fish, with the proportions of large and small fish differing between receptors. Fish were reported to exhibit the highest EPCs and, based on a dataset limitation, the concentrations of predator fish had to be estimated on a whole-of-body basis using measured fillet concentrations. The availability of predator fish data is further limited to six primary samples which reduces confidence in the estimates.
- For the purpose of this risk assessment, it has been assumed that some (but not all) receptors spend their entire lives within the AOI and obtain 100% of their abiotic and biotic exposure from the exposure environments. This is a highly conservative assumption, as it would be reasonable to assume that only a portion of each receptor's exposure occurs within each of the AOI. The effect of overestimation is likely increased for smaller water bodies or water bodies which are less suitable as habitat or food sources. The AUF is identified as an important, sensitive factor which may affect risk estimates by up to an order of magnitude.

10.5.4 Consumption of higher order terrestrial species

Several raptors have been identified as potentially present within proximity of the AOI which may obtain a portion of their diet from higher order terrestrial species (e.g. rabbits, birds, reptiles). No samples of higher order terrestrial species tissue have been collected to obtain empirical PFAS data. This represents an ethical constraint on the investigation, as it is not clear that causing harm to higher order terrestrial species to estimate dietary exposure to predators would result in a net environmental benefit in the context of conducting PFAS risk assessments.

The HEPA (2026) soil bioaccumulation criteria consider exposure by consumption of terrestrial herbivores. The criteria for PFOS+PFHxS are based on an effective soil to herbivore transfer factor of 9.4 times greater than the soil concentration (soil->plant transfer factor 1.1 multiplied by plant to herbivore transfer factor of 8.5). Notwithstanding, using the approach documented in HEPA (2026), and assuming that the prey species spend

their entire lives within the affected portions of the AOI, an herbivore biota concentration of 1.1 mg/kg.ww can be estimated using the following equation:

$$C_{herbivore} = EPC_{soil} * TF_{S \rightarrow P} * TF_{P \rightarrow H}$$

Where: $C_{herbivore}$ is the estimated concentration of PFOS+PFHxS in mg/kg.ww).

EPC_{soil} is the exposure point concentration in soil (0.127 mg/kg).

$TF_{S \rightarrow P}$ and $TF_{P \rightarrow H}$ are the transfer factors from soil to plant and plant to herbivore (mg/kg per mg/kg) as sourced fromHEPA (2026), of 1.1 and 8.5 respectively.

This assumption is based on the relevant species grazing within the affected portions of the base for the entire lives, which is a highly conservative and likely unrepresentative assumption, but is not able to be defensively adjusted.

Risks to terrestrial receptors could be estimated by estimating biota concentrations consistent with the approach in HEPA (2026), however no carnivorous mammalian species were identified within the AOI (See **Section 5.5.4**).

For avian predators, the anticipated home ranges are large and the dietary intake obtained from the AOI is likely to comprise a small proportion of total terrestrial species consumption. Consideration of AUFs which reflect the likely usage of the site by avian predators would result in the estimated risk profile being similar to potential risks estimated to invertivorous mammals (e.g. HI = 1 to 10). An example calculation is provided following:

$$HI = \frac{AUF * FIR * C_{herbivore}}{TDI}$$

Where: AUF is the area use factor of an example raptor (assumed to be 0.1 for predatory raptors).

FIR is the bodyweight normalised food ingestion rate in kg/kg.bw/day, the value estimated for the osprey has been adopted (300 g/day per 1000 g bodyweight).

$C_{herbivore}$ is the concentration of PFOS+PFHxS estimated above at 1.2 mg/kg.ww.

TDI is the adopted avian tolerable daily intake of 0.0077 mg/kg.bw.day for PFOS+PFHxS.

The estimated HI is 4.7, which is similar to what has been estimated for invertivorous mammals (see **Section 9.3.2**), as such the exclusion of assessment of this exposure pathway is considered not to have materially affected the outcomes of the assessment. Adoption of a DTED consistent with that underlying the soil-bioaccumulation criteria for birds (i.e. CCME (2021) DTED of 0.385 mg/kg.bw/day) would result in this risk being estimated to be low and acceptable and notably below the risks estimated to terrestrial mammals.

10.5.5 Comparative reptile exposure

The primary drivers of potential PFOS+PFHxS exposure within the AOI are the food intake to bodyweight ratio, relative area use factors. The ecological database searches (**Table D1**) identify historical sightings of three snakes, a grass skink and an unidentified skink within the search radius. It is conceivable that small reptiles, such as skinks, could spend the entirety of their lives within the AOI.

The key exposure parameter for reptiles is accordingly the food intake to bodyweight ratio. JBS&G notes that the allometric food intake equations for reptiles published in Nagy KA (2001) result in considerably lower estimated food intake to bodyweight ratios than have been estimated for birds and mammals. An example is provided following for a small reptile (all reptiles) with a bodyweight of 10 g:

$$FIR_{DMI} = 0.0111 * 10^{0.92}$$

$$FIR_{DMI} = 0.092 \frac{g}{day}$$

$$FIR_{DMI} = 0.000092 \frac{kg}{day}$$

Which is transformed to a food intake to bodyweight ratio in kg/kg.bw/day as follows

$\frac{FIR_{DMI}}{BW} = \frac{0.000092\left(\frac{kg}{day}\right)}{0.01(kg.bw)}$Which would result in a FIR to bodyweight ratio of 0.0092 kg (food-dry matter basis)/kg(bodyweight) per day. This value is approximately an order of magnitude lower than the ratios upon which the adjusted indirect soil criteria are based (ranging from 0.06 to 0.12 kg (food-dry matter basis)/kg(bodyweight) per day for mammals and birds respectively). Whilst it is a valid argument that smaller reptilian species would likely have a high AUF, this is likely to be offset by the proportionally lower food intake.

Further discussion is provided in **Section 10.6.2** in relation to the relative toxicity of PFOS+PFHxS to reptiles compared with birds and mammals.

10.6 Toxicity assessment

10.6.1 Adopted toxicity end-points

The toxicity assessment presented herein draws predominantly on the HEPA (2026) and ANZG (2026). ANZG (2026) presents a detailed criteria derivation for PFOS in freshwater. The toxicity assessment which underpins the aquatic species assessment is discussed following:

- The toxicity assessment endpoints adopted for aquatic species are based on 95% spp. DGVs for Port Phillip Bay and taxa specific sensitive toxicological end-point NOECs for RAAF Lake. The 95% spp. DGV adopted for Port Phillip Bay is considered appropriate and no alternative criteria has been identified which could be used to screen for direct contact risks.
- The 95% spp. DGV was used in combination with a geomean BAF to develop a FTSB. This value was adopted to assess for potential risks to higher order aquatic species attributable to the consumption of biota impacted by PFAS in Port Phillip Bay. The default screening approach for bioaccumulation risks to aquatic receptors, being comparison of the surface water concentration to the 99% spp. DGV would have identified a potentially elevated risk to all higher order aquatic species. The FTSB is considered to provide a more suitable basis for assessing risks to higher order fish which is based on measurement of the extent of PFAS which has been absorbed through abiotic and biotic media exposure. The application of the higher species protection criteria is not based on an assessment of bioaccumulation related toxicological effects. The outcomes of the assessment using the FTSB has indicated that risks to higher order aquatic species in Port Phillip Bay are low and acceptable. This approach is considered appropriate in absence of an alternative approach being available, but is noted to be based on limited studies.
- The assessment of potential direct contact risks to aquatic species in RAAF Lake has considered identification of taxa specific NOECs. In general, the lowest available NOEC was adopted as the end-point against which the surface water concentrations were compared which is a conservative approach to identifying the sensitive aquatic receptors. For crustaceans, the second lowest NOEC was adopted in preference to the lowest given that the second lowest NOEC was based on a preferable test measure (EC10 vs. LOEC).
- In all cases, the concentrations of PFOS+PFHxS were compared to the NOECs/spp. DGVs for PFOS only. This is considered appropriate and conservative in absence of a PFHxS specific criterion and/or sufficient toxicological data to derive a PFHxS criterion. This has caused the estimated hazard indices to increase, however, it is not considered likely that the outcomes would be materially altered if an alternative approach was adopted.

The ecological toxicity assessment which underpins the criteria presented in HEPA (2026) are inconsistent. For the purposes of this report:

- To assess abiotic exposures in RAAF Lake, and food-web based dietary exposure to birds in Port Phillip Bay, TRVs have been adopted based upon values relied upon in the HEPA (2026) for avian and mammalian wildlife diet. If the TRVs used in HEPA (2026) when deriving soil criteria were adopted, the risks would be significantly lower. This would, however, be inconsistent with the approaches typically adopted when conducting PFAS related ERAs in Australia at present.
- To assess potential bioaccumulation-based risks to terrestrial mammals and birds, DTEDs have been adopted as consistent with HEPA (2026) for mammals and CCME (2021) for birds. It is considered appropriate in making assessment of potential bioaccumulation exposures using indirect soil criteria to adopt a toxicity end-point which is consistent with the underlying source documents.

With consideration of the above, the adopted toxicity end-points have the potential to underestimate risks to species via comparison with soil-criteria and potentially overestimate risks to receptors assessed by dose estimation approaches.

Consideration could be given to collection of biota data and assessment of terrestrial receptors using a dose estimation approach where further clarity on potential terrestrial receptor risks is required to inform risk management decisions.

10.6.2 Reptilian toxicity

At the time of this report, there is a lack of defensible TRVs to assess the risks posed by PFAS to reptiles (outside of PFOA) and common approaches include not assessing risks to reptiles due to uncertainty or using avian based TRVs on the basis that reptiles are closer to avian species than mammalian species.

JBS&G undertook a review of readily accessible online databases and identified an individual study which assessed the dose-response of the brown anole (*Anolis sagrei*) to PFOS, as documented in *Effects of perfluorooctane sulfonate (PFOS) on a novel reptilian toxicity test species, the brown anole (Anolis sagrei)* (Salice CJ. *et al.* 2025). The study was limited to an individual species at two life stages of one sex (adult and sub-adult males). A NOEL of 0.2 mg/kg.bw/day was reported with a 10% effect for growth rate reported at 0.22 mg/kg.bw/day.

Whilst Salice CJ. *et al.* (2025) is limited to single species and a single sex, the reported NOEL is not substantially different to the LOAELs reported for mammals, and reptiles are noted to have a considerably lower food intake to bodyweight ratio compared to mammals, as reported in Nagy KA (2001). Detailed assessment for specific reptiles using an uncertainty adjusted NOEL (e.g. 0.002 mg/kg.bw/day) would likely result in an overall lower estimated risk than for mammals due to the substantially lower food intake (~10 times lower food intake) and potentially applicable TRV (0.002 mg/kg.bw/day).

10.6.3 Other PFAS

HEPA (2026) states that '*In relation to wildlife exposure to PFAS, there is a lack of available toxicity data relevant to Australian species, hindering quantitative risk assessment. Such information is unlikely to become available in the near future*'. This provides a source of uncertainty which cannot be addressed at the time of this report.

10.7 Sensitivity assessment summary

The sensitivity assessment documented herein has been undertaken to evaluate whether alternative parameter exposure would result in materially different outcomes to the risk assessment. The following outcomes are provided:

- The process of problem identification has been undertaken on the basis of previous investigations and review of information, and is considered appropriate in identifying the issues that warrant consideration as part of the detailed ERA.

- The tier 1 screening process has made use of Australian Government guidance approaches and available criteria.
- The parameters adopted for the estimation of concentrations of PFOS+PFHxS within exposure media were selected on a conservative basis. At each step of EPC estimation, conservative values were selected (i.e. maximum or 95% UCLs). This has resulted in conservatism which has likely overstated the extent of risks adopted by organisms.
- The adopted adjusted soil criteria have been selected to provide a reasonable basis to assess risks attributable to consumption of biota impacted by accumulation of PFAS from soil. The identified receptor groups and specific criteria adopted to protect those groups are considered appropriate on the basis of the receptor review undertaken herein. Whilst alternative TRVs could have been adopted to assess exposures, the approach implemented is based on adoption of DTED which is consistent with the approach implemented in derivation of indirect soil criteria in HEPA (2026).
- The adopted representative ROC have been selected to ensure that risk calculations were undertaken on individuals with the highest estimated food intake to bodyweight ratios. This has resulted in the conservatism which has likely overstated the extent of risks adopted by other organisms within the relevant receptor groups.
- Exposure estimates were made on the basis of reputable published literature and in consultation with specialist ecologists. Exposure factors inherently provide a significant source of uncertainty due to the simplifying assumptions which are required to be made (e.g. all ospreys have a common weight). However, the adopted exposure factors are considered to be well founded and suitable for the purposes of this report.
- There are several factors which may have caused the risk and hazard estimates provided in this risk assessment to be underestimated. However, it is more than likely that any underestimation caused by the risk assessment process and limitations of available data and modelling techniques has been overcome by the use of conservative assumptions throughout the assessment.

11. Conclusions

11.1 General

Based on the scope of works undertaken, the available data set, and subject to the limitations presented **Section 13**, the following conclusions are provided on the basis of the detailed ERA presented within this report.

11.2 Terrestrial areas

Representative soil EPCs exceeded ecological soil screening criteria for direct contact exposure pathways in ecologically relevant soil (uncovered soil, <0.5 m depth) in a relatively small portion of the base. This relatively small portion comprises the exposed soil fringing a fire-fighting practice area (SA04), a former fuel storage area (SA05) and exposed soil fringing a range of aircraft service facilities (SA06). Concentrations of PFAS were identified in these areas which were considerably above the criteria (up to approximately 200 mg/kg for PFOS+PFHxS). On this basis it was concluded that these areas pose a **potentially elevated** risk to terrestrial ecological receptors by direct contact (including flora, soil-dwelling species and higher order species). No other areas on the base were found to exhibit representative EPCs in soil above the direct contact screening levels and accordingly represent a **low and acceptable risk** to terrestrial ecological receptors by direct contact exposures. As no endangered and vulnerable vegetation has been identified in the affected terrestrial fringe of SA04 to SA06, and that no other areas exhibited exceedances of tier 1 criteria which assess potential risks to flora, PFAS is considered to represent a low and acceptable risk to endangered and vulnerable vegetation at the base.

Representative soil EPCs exceeded the indirect soil bioaccumulation criteria PFOS+PFHxS in ecologically relevant soil in each on base source area, as well as non-source areas of the base. Adjusted tier 1 screening criteria were adopted to assess potential risks to terrestrial higher order species which may be affected by bioaccumulation related exposure pathways (i.e. mammals and birds). The criteria were adjusted to reflect the species likely to be present within the terrestrial areas of the base. Risks were assessed by comparison of the representative soil EPCs to the adjusted tier 1 screening with the outcomes summarised following:

- Terrestrial mammalian species identified at the base were limited to the black and brown rat and the house mouse, as well as invasive species (e.g. European rabbit). None of these species are considered conservation significant under applicable regulatory instruments. HEPA (2026) provides bioaccumulation criteria protective of similar species (i.e. small and medium omnivore/invertivore species). The estimated ecologically relevant soil EPCs across the entirety of the base (excluding SA04 to SA06 discussed above) exceeded the lowest applicable indirect soil bioaccumulation criterion indicating a **potentially elevated** risk to mammalian species (HI 1 to 10).
- Terrestrial avian species identified at the base included a range of conservation significant herbivores, omnivores, invertivores and birds of prey. Bioaccumulation criteria were adopted from CCME (2021) for the assessment of terrestrial birds (omnivores and herbivores). The estimated soil EPCs in ecologically relevant soil across the entirety of the base were below the adopted criteria, indicating that risks to these receptors are **low and acceptable**.

11.3 RAAF Lake

11.3.1 Aquatic species

Direct toxicity related risks were assessed by comparison of representative EPCs measured in surface water in RAAF Lake to lowest NOECs relevant to the taxonomic groups considered likely to be present within RAAF Lake. The outcomes of the comparison are summarised following:

- The lowest NOECs for amphibians, insects and, in 2024, crustaceans and rotifers were exceeded by representative surface water EPCs in RAAF Lake. For crustaceans the HI was above one in only one of the three sampling events. Brine shrimp were observed within lakebed sediments indicating that crustaceans are present within lake sediments. Amphibians and insects were not observed within the lake, however, it is reasonable to assume that they may be present and exposed to PFAS within the water body. As such amphibians, insects and crustaceans are considered to be **potentially elevated** due the elevated concentrations of PFAS in surface water, which may be attributable to leaching from impacted sediments.
- Whilst gastropod shells were observed in RAAF Lake, no confirmation was able to be obtained that the shells contained living animals and the EPCs estimated across all sampling rounds was below the mollusc NOEC.
- The lowest NOEC for fish was exceeded in RAAF Lake. No fish are anticipated to be present in RAAF Lake due to the frequent complete drying cycles and as such risks to fish are considered to be **low and acceptable** for this receptor.
- The lowest NOEC for plants/algae was not exceeded indicating a **low and acceptable** risk to aquatic plants in RAAF Lake.

Although the current tier 1 screening criteria for bioaccumulation was exceeded in RAAF Lake, these risks are only relevant to higher order aquatic species. No such aquatic species were identified within RAAF Lake.

11.3.2 Mammalian and avian receptors

Risks to mammalian and avian receptors posed by PFAS in the identified AOI were subject to further assessment with the outcomes summarised as follows:

- No mammalian species were identified which were anticipated to derive a substantial proportion of their dietary intakes from RAAF Lake. As such, no detailed risk estimates were required, and it has been concluded that mammalian species which may forage or predate within the aquatic AOI adopt a **low and acceptable risk** of exposure to PFAS.
- Multiple attempts were made to identify and sample aquatic biota within RAAF Lake. Insufficient biota mass was able to be obtained, indicating there may be generally low availability of aquatic biota within RAAF Lake. Risks to avian receptors in RAAF Lake were estimated based on abiotic media concentrations. The risks are driven by exposures to PFOS+PFHxS in sediment, with a lesser extent attributable to PFOS+PFHxS in surface water.
- HI calculations are summarised as follows for the following species:
    - For herbivores which have incidental exposure to sediments by foraging fringing vegetation (e.g. black swan), risks are **potentially elevated** (HI estimated at 1.2).
    - For omnivores which have an elevated incidental exposure to sediment by pecking at benthic and pelagic invertebrates present on exposed mudflats (e.g. double-banded plover), risks are **potentially elevated** (HI estimated at 4.4).
    - For omnivores which adopt incidental exposure to sediment in shallow water foraging (Australasian shoveler), risks are **low and acceptable** (HI estimated at 0.25).
    - For piscivores which are unlikely at access the area based on dietary preferences (little egret, Caspian tern, osprey and little tern), risks are **low and acceptable** (HI range 0.01 to 0.027).

11.4 Port Phillip Bay

11.4.1 Aquatic species

Current tier 1 screening criteria were adopted to screen for potential risks to aquatic species in Port Phillip Bay inshore environment. Exceedances of the adopted tier 1 criteria were identified in Port Phillip Bay for bioaccumulation screening criteria only (i.e. 99% spp. DGV). On this basis, the potential for direct toxicity effects to aquatic species are **low and acceptable** in the inshore environment.

Within the foreshore environment, a potentially complete exposure pathway was identified between sediment/porewater and benthic organisms. It is considered that there is a potentially elevated exposure between sediment/porewater and low order aquatic species with a benthic exposure in the Port Phillip Bay foreshore. The confidence in the assessment is low, but it is not considered likely that additional assessment would meaningfully alter the assessment outcomes with respect to the approach to remediation and/or management of the site.

Within Port Phillip Bay, an assessment of higher order aquatic species using fish tissue screening benchmarks developed in **Section 8.3.2** indicates that bioaccumulation risks to higher-order species are **low and acceptable**.

11.4.2 Mammalian and avian receptors

Current tier 1 screening criteria were adopted to screen for potential risks mammalian and avian consumers of aquatic biota in Port Phillip Bay. Representative EPCs for PFAS in biota exceeded the mammalian and avian BGVs presented in HEPA (2026) for some aquatic biota types (aquatic vegetation, invertebrates and fish). Risks to mammalian and avian receptors posed by PFAS in Port Phillip Bay were subject to further assessment with the outcomes summarised as follows:

- No mammalian species were identified which were anticipated to obtain a substantial proportion of their dietary intakes from Port Phillip Bay. Whilst some aquatic mammalian species were identified through government database searches, it is considered that the proportion of their lives spent within the AOI would result in a negligible level of exposure. As such, no detailed risk estimates were required, and it has been concluded that mammalian species which may forage or predate within Port Phillip Bay adopt a **low and acceptable risk** of exposure to PFAS.
- PFAS related risks to avian receptors in Port Phillip Bay are driven by PFOS+PFHxS. PFOS+PFHxS concentrations are most elevated in predator fish and prey fish (generally between 0.01 to 0.1 mg/kg) with concentrations in aquatic plants, benthic invertebrates and pelagic invertebrates lower (approximately <0.1 mg/kg).
- HI calculations are summarised as follows for the following species:
    - For herbivores and omnivores with negligible consumption of fish (black swan, Australasian shoveler, double-banded plover), risks are **low and acceptable** (HI range 0.2 to 0.67).
    - For piscivores with moderate site affinity (little egret, Caspian terna, little tern), risks are **potentially elevated** (HI range 1.8 to 2.1).
    - For piscivores with low site affinity (osprey), risks are **low and acceptable** (HI estimated at 0.77).

11.5 Overall conclusions

Potentially elevated risks have been identified to some ecological receptors in the AOI. The presence of base-attributable PFAS in the aquatic AOI are a function of historical discharges of PFAS from the base. Discharges of PFAS from the base are ongoing and will be subject to more detailed assessment within JBS&G (2026b).

It is anticipated that reducing discharges by implementing source control and/or removal within the extent of the base would cause PFAS in RAAF Lake to reduce over the long-term, but the reduction may not be directly

measurable due to confounding factors affecting the concentration of PFAS in the lake (e.g. potential for sediment to act as secondary source to surface water). Source control and/or removal could have a measurable effect on the concentrations PFAS in the foreshore and inshore areas of Port Phillip Bay immediately adjacent to the base.

Remediation and/or management of the AOI directly would require a considerable extent of effort and potentially cause environmental disturbance for which the net environmental benefit is not currently clear. Whilst there is a potential for ongoing discharges from the base to the AOI, any remedial efforts may be undermined by subsequent recontamination.

These outcomes should be considered in the application of future remediation and/or management approaches in relation to the base.

12. References

12.1 Guidelines and legislation

12.1.1 Australian

Australian National Guidelines, legislation and regulations considered in preparation of this ERA are listed following:

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12.1.2 International

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- US EPA (2022b). *ProUCL Version 5.2.0 Technical Guide: Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations*. United States Environmental Protection Agency, dated 2022.

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13. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

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

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

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Appendix A Figures

Figure 1 Site location

Figure 2 Areas of interest

Figure 3 Point Cook source areas

Figure 4 Topography and hydrology figure (series)

Figure 5 Soil sample locations and tier 1 exceedances (series)

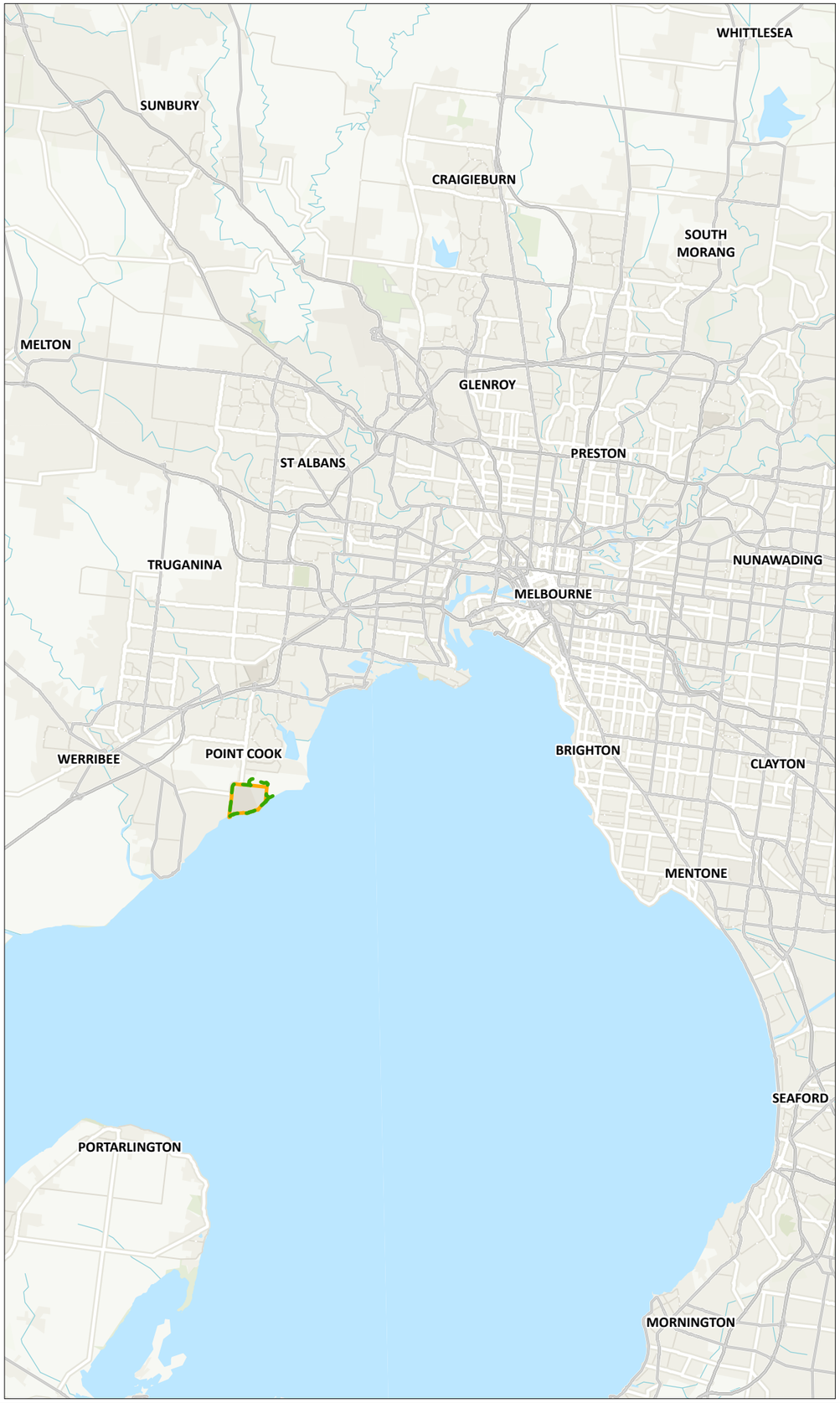
Figure 6 Groundwater well locations and tier 1 exceedances (series)

Figure 7 Sediment sample locations

Figure 8 Porewater sample locations and tier 1 exceedances

Figure 9 Surface water sample locations and tier 1 exceedances

Figure 10 Port Phillip Bay biota sample locations and tier 1 exceedances (series)





Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- Parks And Conservation Reserves

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Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:35,000

0 1,000 2,000

metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SITE LOCATION

FIGURE 1

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_01_SiteLocation

Reference: ESRI Topographic Basemap - Accessed Imagery: 15/05/2026 | Aerial Imagery Supplied by Nearmap - (Capture Date: 10/08/2025)



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Areas Of Interest

- On-Base Terrestrial Area
- On/Off-Base Aquatic Area (RAAF Lake)
- Port Phillip Bay foreshore
- Port Phillip Bay inshore

Note:
The Port Phillip Bay foreshore and inshore boundaries are approximations based on aerial imagery.

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Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

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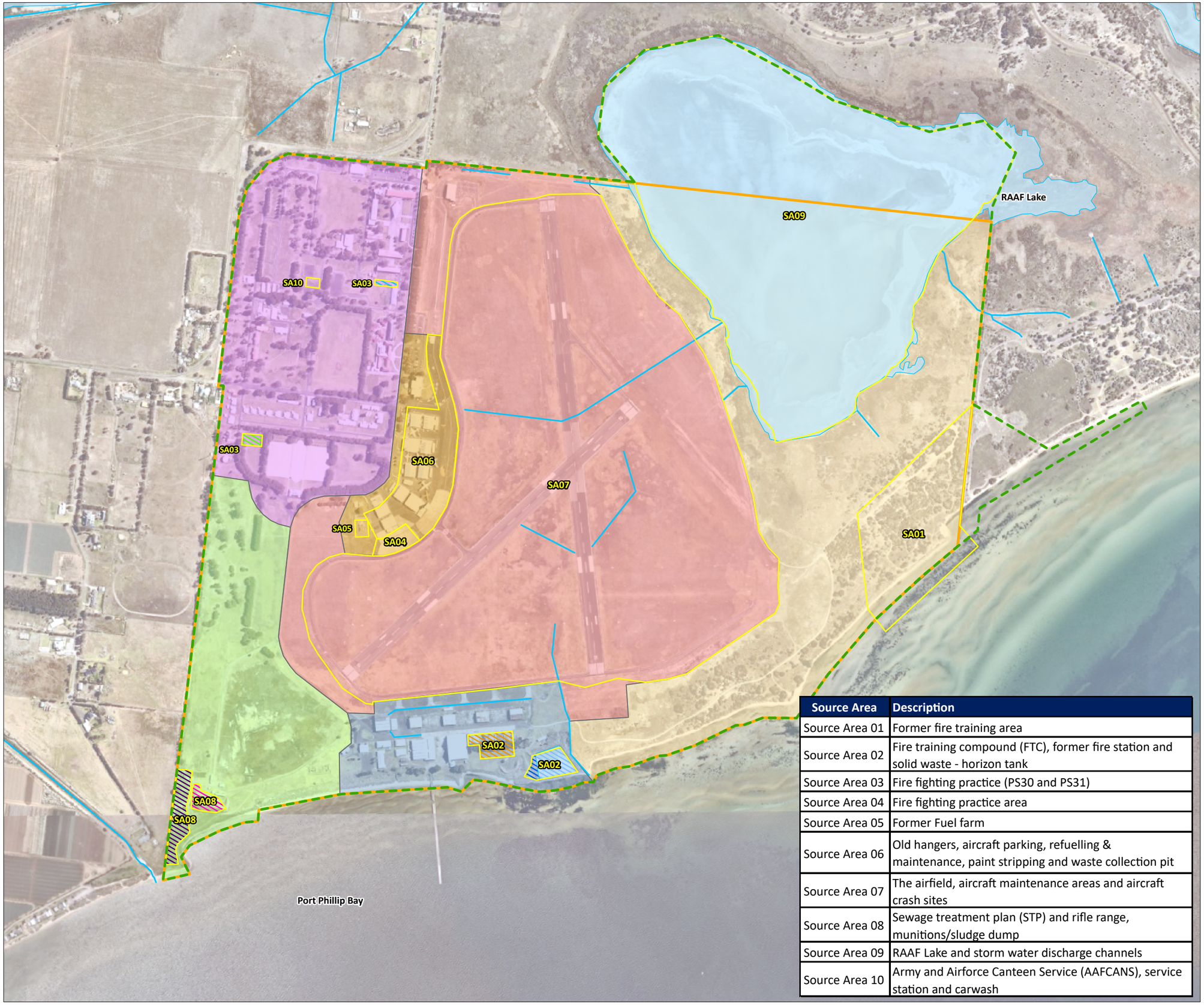
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RAAF Base Point Cook

AREAS OF INTEREST

FIGURE 2

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_02_Area Of Interest
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Source Area	Description
Source Area 01	Former fire training area
Source Area 02	Fire training compound (FTC), former fire station and solid waste - horizon tank
Source Area 03	Fire fighting practice (PS30 and PS31)
Source Area 04	Fire fighting practice area
Source Area 05	Former Fuel farm
Source Area 06	Old hangers, aircraft parking, refuelling & maintenance, paint stripping and waste collection pit
Source Area 07	The airfield, aircraft maintenance areas and aircraft crash sites
Source Area 08	Sewage treatment plan (STP) and rifle range, munitions/sludge dump
Source Area 09	RAAF Lake and storm water discharge channels
Source Area 10	Army and Airforce Canteen Service (AAFCANS), service station and carwash

Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

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Scale 1:10,500

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metres

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RAAF Base Point Cook

POINT COOK SOURCE AREAS

FIGURE 3

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_03_Source Areas And Site Lyout
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Topographic Contour Elevation 1m (Vicmap)
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

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Scale 1:10,500

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metres

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RAAF Base Point Cook

TOPOGRAPHY

FIGURE 4A

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_04A_Topography
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Drain
- Sewage
- Water Supply
- Stormwater Infrastrucutre Flow Direction
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore
- 1 Discharge Point

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Scale 1:10,500

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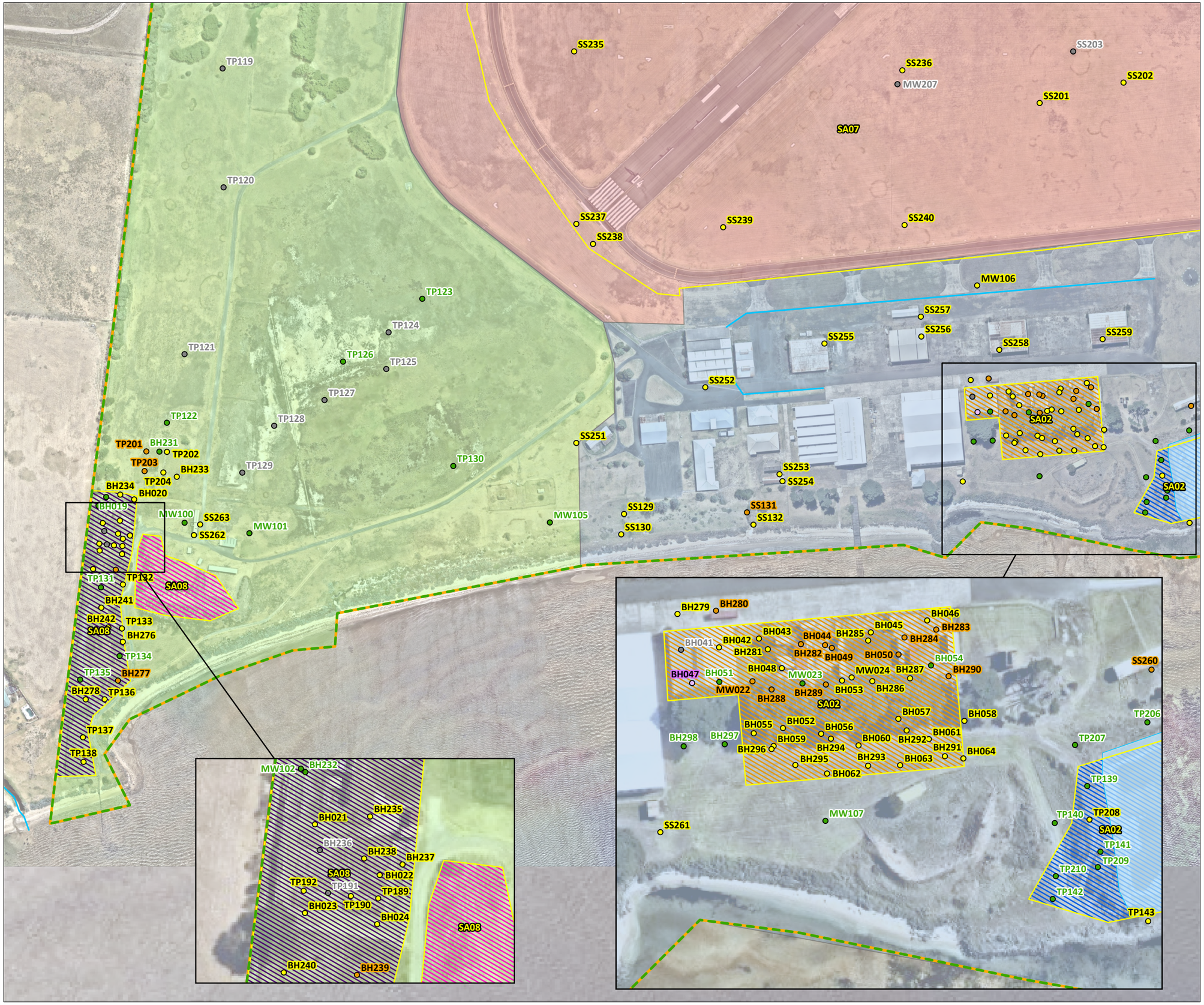
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

**SITE SERVICES -
STORMWATER, SEWER AND WATER**

FIGURE 4B

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_04B_Hydrology
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area B - Rifle Stop Butt and STP
- Area D - Southern Hangars Area
- Area E - Airfield

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses
- PFOS >1 mg/kgPFAS NEMP 2025 Ecological direct exposure – all land uses



JBS&G

Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:3,500

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metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5A

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05A_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Soild Waste - Horizon Tank

Investigation Area

- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses



JBS&G

Job No: 66022

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Scale 1:3,500

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metres

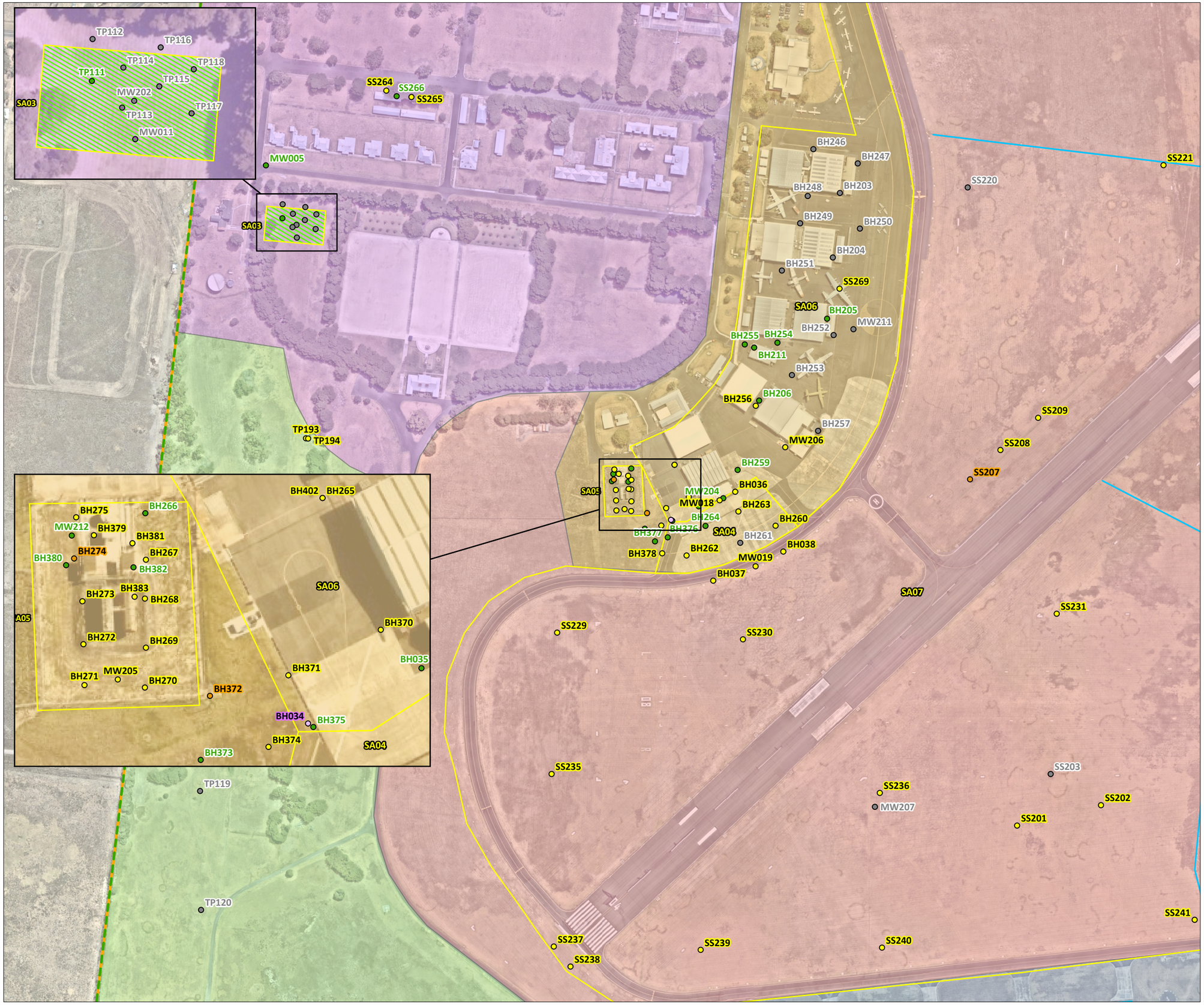
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5B

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05B_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- PS31

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses
- PFOS >1 mg/kgPFAS NEMP 2025 Ecological direct exposure – all land uses



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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:3,500

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metres

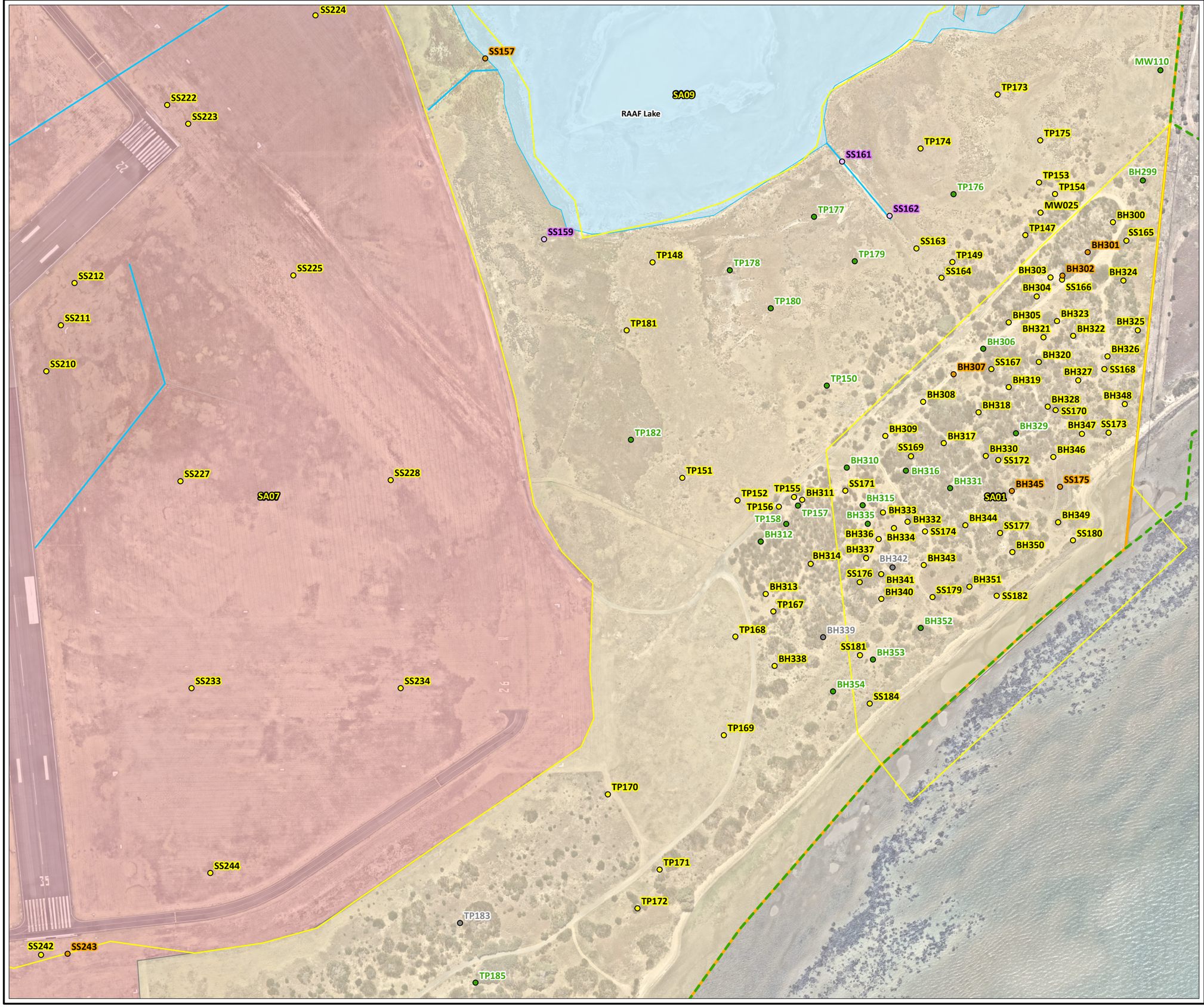
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5C

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05C_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Investigation Area

- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses
- PFOS >1 mg/kgPFAS NEMP 2025 Ecological direct exposure – all land uses



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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:3,500

0 100 200
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5D

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05D_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- PS30

Investigation Area

- Area A - Accommodation and Administration
- Area C - Museum and Hangars
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses



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Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:3,500

0 100 200
metres

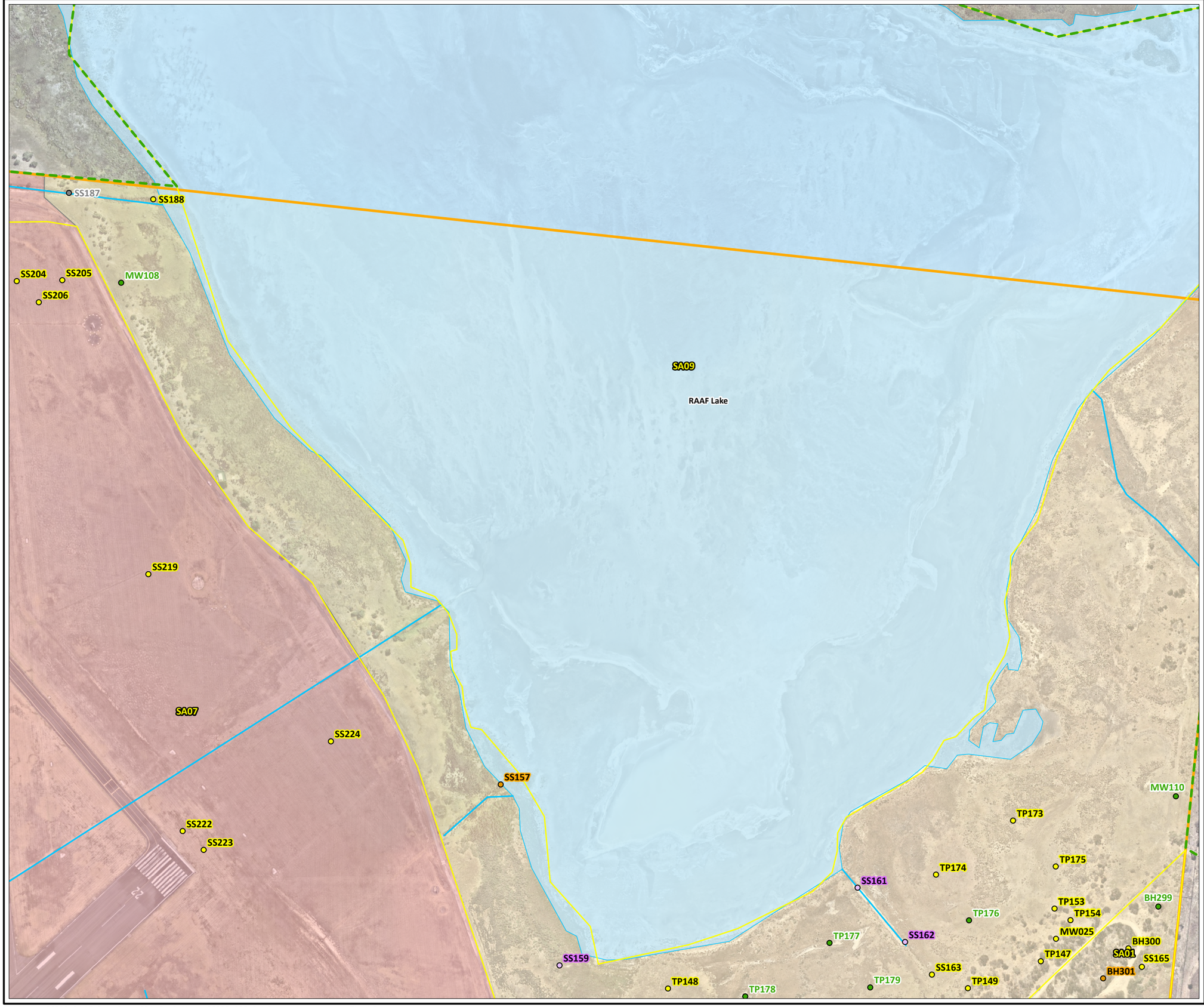
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5E

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05E_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Investigation Area

- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect
- PFOS ≤0.003 mg/kg, detected, no exceedances
- PFOS >0.003 to ≤0.14 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure - all land uses
- PFOS >0.14 to ≤1.0 mg/kg, PFAS NEMP 2025 Interim ecological indirect exposure, alternate criterion all land uses
- PFOS >1 mg/kgPFAS NEMP 2025 Ecological direct exposure – all land uses



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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:3,500

0 100 200
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SOIL SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 5F

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_05F_Soil Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025

Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect to ≤0.02 - No exceedances
- PFOS >0.02 to ≤0.9 µg/L – Exceeds PFAS ANZG 99% spp. DGV
- PFOS >0.9 to ≤4.0 µg/L – Exceeds PFAS ANZG 95% spp. DGV
- PFOS >4.0 to ≤20 µg/L – Exceeds PFAS ANZG 90% spp. DGV
- PFOS >20 µg/L – Exceeds PFAS ANZG 80% spp. DGV

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SHALLOW GROUNDWATER WELL LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 6A

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_06A_Shallow Groundwater Well Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect to ≤0.02 - No exceedances
- PFOS >0.02 to ≤0.9 µg/L – Exceeds PFAS ANZG 99% spp. DGV
- PFOS >0.9 to ≤4.0 µg/L – Exceeds PFAS ANZG 95% spp. DGV
- PFOS >4.0 to ≤20 µg/L – Exceeds PFAS ANZG 90% spp. DGV
- PFOS >20 µg/L – Exceeds PFAS ANZG 80% spp. DGV

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

INTERMEDIATE GROUNDWATER WELL LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 6B

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_06B_Intermediate Groundwater Well Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect to ≤0.02 - No exceedances
- PFOS >0.02 to ≤0.9 µg/L – Exceeds PFAS ANZG 99% spp. DGV
- PFOS >0.9 to ≤4.0 µg/L – Exceeds PFAS ANZG 95% spp. DGV

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

DEEP GROUNDWATER WELL LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 6C

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_06C_Deep Groundwater Well Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Drain
- Sewage
- Water Supply
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- PFOS+PFHxS ≤0.005 mg/kg
- PFOS+PFHxS >0.005 to ≤0.05 mg/kg
- PFOS+PFHxS >0.05 mg/kg to ≤5 mg/kg
- PFOS+PFHxS >5 mg/kg

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,000

0 250 500
metres

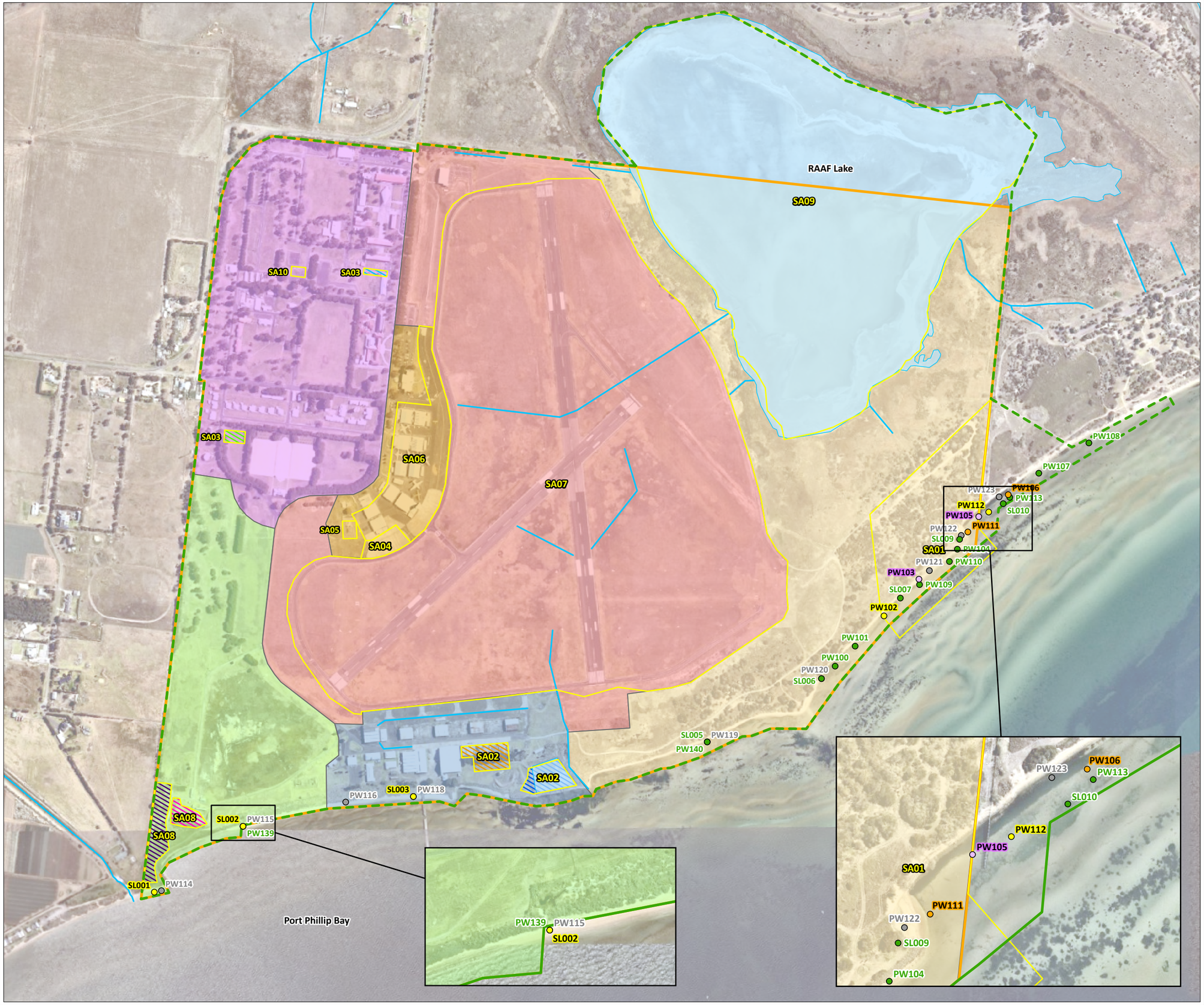
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SEDIMENT SAMPLE LOCATIONS

FIGURE 7

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_07_Sediment Sample Locations
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Legend

- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect to ≤0.02 µg/L
- PFOS >0.02 to ≤0.9 µg/L
- PFOS >0.9 to ≤4.0 µg/L
- PFOS >4.0 to ≤20 µg/L
- PFOS >20 µg/L

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,000

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

POREWATER SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 8

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_08_Porewater Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025

RAAF Lake
Port Phillip Bay
SW205
SW206
SW227
SA09
SA10
SA03
SW281
SW207
SW228
SW208
SW229
SW006
SW005
SW218
SW288
SW209
SW210
SW230
SW004
SW003
SW216
SW219
SW285
SW001
SW002
SW215
SW212
SA03
SA06
SW220
SW286
SA07
SW275
SW287
SW221
SA05
SW283
SA01
SW282
SA04
SW222
SW274
SW223
SW273
SW272
SW224
SW225
SW271
SW270
SW217
SW278
SW213
SW279
SW280
SA02
SW290
SW214
SW203
SW232
SA02
SW233
SW202
SW269
SW234
SW268
SA08
SW267
SW277
SW266

Legend

- Drain
- Sewage
- Water Supply
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Location Result Category

- Non-detect to ≤0.02 µg/L - No exceedances
- PFOS >0.02 to ≤0.9 µg/L – Exceeds PFAS ANZG 99% spp. DGV
- PFOS >0.9 to ≤4.0 µg/L – Exceeds PFAS ANZG 95% spp. DGV
- PFOS >4.0 to ≤20 µg/L – Exceeds PFAS ANZG 90% spp. DGV
- PFOS >20 µg/L – Exceeds PFAS ANZG 80% spp. DGV

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,000

0 250 500
metres

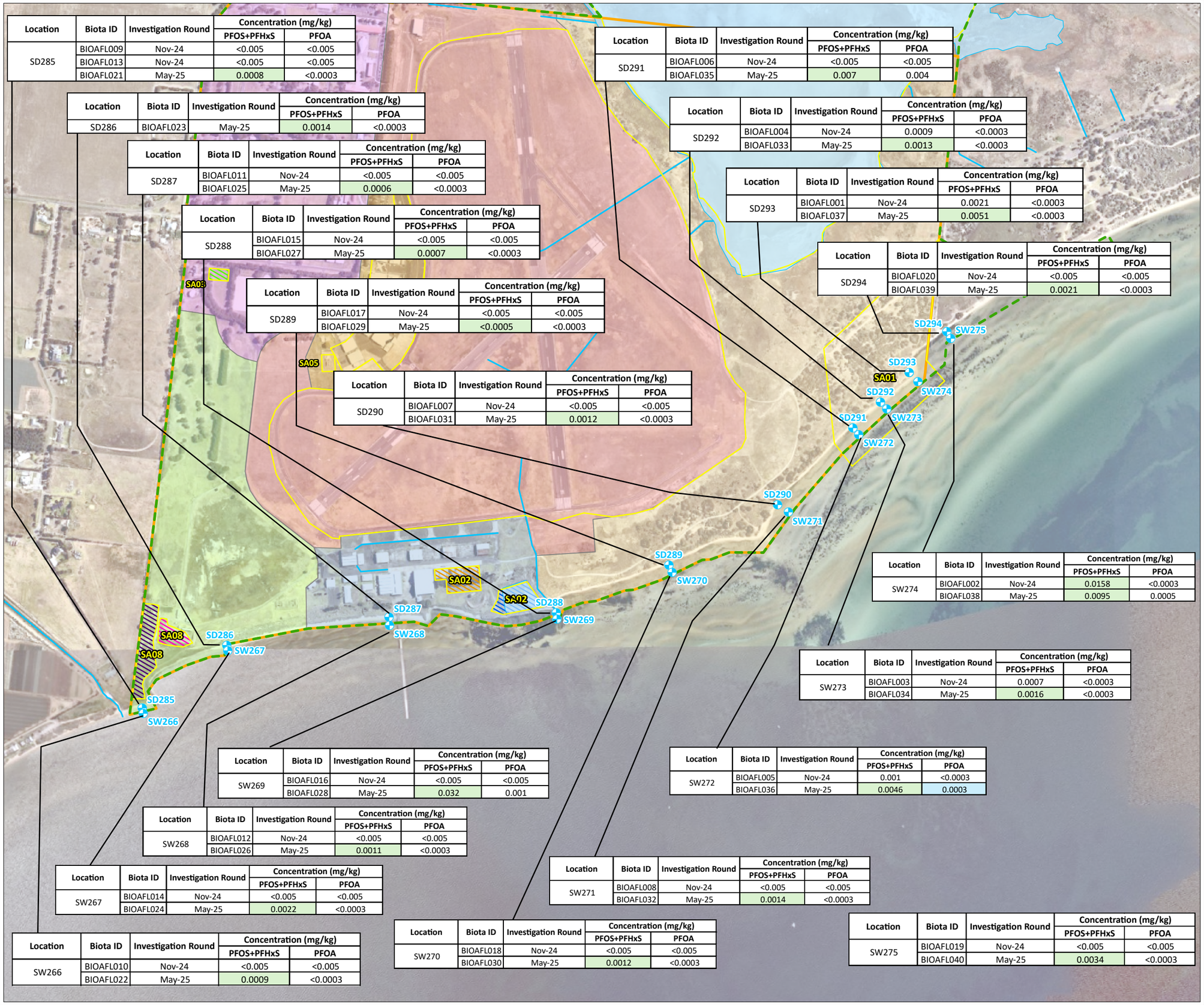
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

SURFACE WATER SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 9

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_09_Surface Water Sample Locations And Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD285	BIOAFL009	Nov-24	<0.005	<0.005
	BIOAFL013	Nov-24	<0.005	<0.005
	BIOAFL021	May-25	0.0008	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD286	BIOAFL023	May-25	0.0014	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD287	BIOAFL011	Nov-24	<0.005	<0.005
	BIOAFL025	May-25	0.0006	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD288	BIOAFL015	Nov-24	<0.005	<0.005
	BIOAFL027	May-25	0.0007	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD289	BIOAFL017	Nov-24	<0.005	<0.005
	BIOAFL029	May-25	<0.0005	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD290	BIOAFL007	Nov-24	<0.005	<0.005
	BIOAFL031	May-25	0.0012	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD291	BIOAFL006	Nov-24	<0.005	<0.005
	BIOAFL035	May-25	0.007	0.004

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD292	BIOAFL004	Nov-24	0.0009	<0.0003
	BIOAFL033	May-25	0.0013	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD293	BIOAFL001	Nov-24	0.0021	<0.0003
	BIOAFL037	May-25	0.0051	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD294	BIOAFL020	Nov-24	<0.005	<0.005
	BIOAFL039	May-25	0.0021	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW274	BIOAFL002	Nov-24	0.0158	<0.0003
	BIOAFL038	May-25	0.0095	0.0005

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW273	BIOAFL003	Nov-24	0.0007	<0.0003
	BIOAFL034	May-25	0.0016	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW272	BIOAFL005	Nov-24	0.001	<0.0003
	BIOAFL036	May-25	0.0046	0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW271	BIOAFL008	Nov-24	<0.005	<0.005
	BIOAFL032	May-25	0.0014	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW270	BIOAFL018	Nov-24	<0.005	<0.005
	BIOAFL030	May-25	0.0012	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW275	BIOAFL019	Nov-24	<0.005	<0.005
	BIOAFL040	May-25	0.0034	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW269	BIOAFL016	Nov-24	<0.005	<0.005
	BIOAFL028	May-25	0.032	0.001

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW268	BIOAFL012	Nov-24	<0.005	<0.005
	BIOAFL026	May-25	0.0011	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW267	BIOAFL014	Nov-24	<0.005	<0.005
	BIOAFL024	May-25	0.0022	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW266	BIOAFL010	Nov-24	<0.005	<0.005
	BIOAFL022	May-25	0.0009	<0.0003

Legend

- Surface Water / Sediment Sample Location
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Exceedance Criteria	Concentration (mg/kg)	
	PFOS+PFHxS	PFOA
PFAS NEMP 3.0 - Avian Biota Screening Value	0.0082	0.0024
PFAS NEMP 3.0 - Mammalian Biota Screening Value	0.0031	0.0028

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

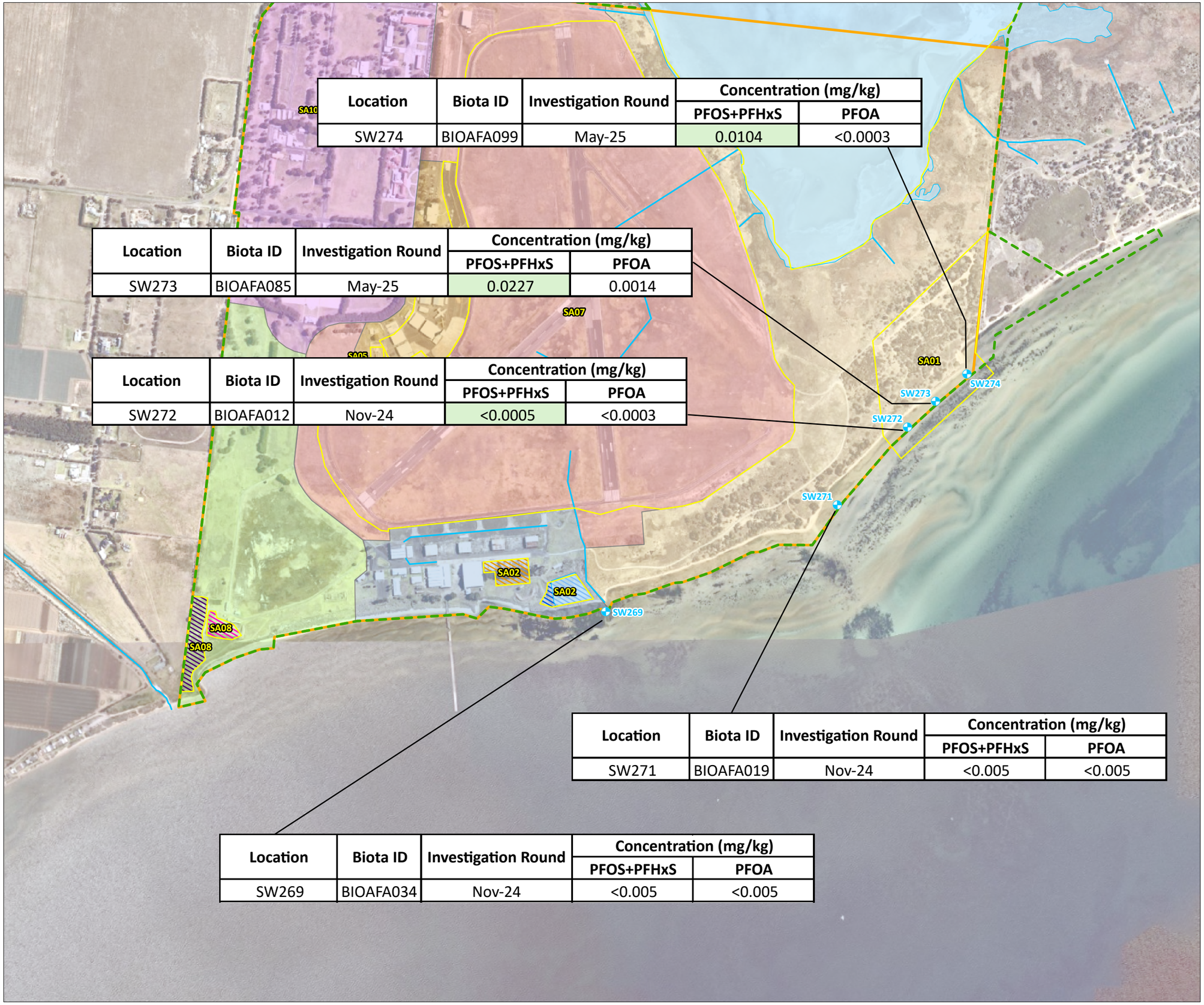
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

PORT PHILLIP BAY VEGETATION SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 10A

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_10A_Port Phillip Bay Vegetation Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW274	BIOAFA099	May-25	0.0104	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW273	BIOAFA085	May-25	0.0227	0.0014

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW272	BIOAFA012	Nov-24	<0.0005	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW271	BIOAFA019	Nov-24	<0.005	<0.005

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW269	BIOAFA034	Nov-24	<0.005	<0.005

Legend

- Surface Water / Sediment Sample Location
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Exceedance Criteria	Concentration (mg/kg)	
	PFOS+PFHxS	PFOA
PFAS NEMP 3.0 - Avian Biota Screening Value	0.0082	0.0024
PFAS NEMP 3.0 - Mammalian Biota Screening Value	0.0031	0.0028

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

PORT PHILLIP BAY PELAGIC INVERTEBRATES SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 10B

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_10B_Port Phillip Bay Pelagic Invertebrates Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD276	BIOAFA029	Nov-24	<0.005	<0.005
	BIOAFA028	Nov-24	<0.005	<0.005
	BIOAFA031	Nov-24	0.0056	<0.005
SD286	BIOAFA047	May-25	0.0013	<0.0003
	BIOAFA048	May-25	0.0087	0.0018
SW267	BIOAFA049	May-25	0.0008	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD280	BIOAFA017	Nov-24	0.0051	<0.005
	BIOAFA018	Nov-24	<0.005	<0.005
SD290	BIOAFA073	May-25	0.0215	0.0039
SW271	BIOAFA076	May-25	0.0006	<0.0003
	BIOAFA077	May-25	0.0025	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD284	BIOAFA042	Nov-24	<0.005	<0.005
	BIOAFA040	Nov-24	0.125	<0.005
	BIOAFA041	Nov-24	<0.005	<0.005
SD294	BIOAFA102	May-25	0.0156	<0.0003
SW275	BIOAFA103	May-25	0.0039	<0.0003
	BIOAFA104	May-25	0.011	0.0017
	BIOAFA105	May-25	0.0045	<0.0003
	BIOAFA107	May-25	0.0021	<0.0003
	BIOAFA110	May-25	0.0006	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD277	BIOAFA027	Nov-24	<0.005	<0.005
	BIOAFA026	Nov-24	<0.005	<0.005
SD287	BIOAFA052	May-25	0.49	0.051
SW268	BIOAFA054	May-25	0.0006	<0.0003
	BIOAFA055	May-25	0.0115	<0.0003
	BIOAFA057	May-25	0.0009	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD282	BIOAFA006	Nov-24	0.0023	<0.0003
	BIOAFA007	Nov-24	0.0079	<0.0003
SD292	BIOAFA078	May-25	0.0147	0.0006
SW273	BIOAFA079	May-25	0.0041	<0.0003
	BIOAFA082	May-25	0.0011	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD279	BIOAFA036	Nov-24	0.007	<0.005
	BIOAFA038	Nov-24	0.016	<0.005
SD289	BIOAFA064	May-25	0.0127	0.002
SW270	BIOAFA065	May-25	0.0079	0.0005
	BIOAFA068	May-25	<0.0005	<0.0003
	BIOAFA070	May-25	0.027	0.0022
	BIOAFA072	May-25	0.003	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD278	BIOAFA035	Nov-24	<0.005	<0.005
	BIOAFA032	Nov-24	<0.005	<0.005
SD288	BIOAFA058	May-25	0.199	0.0033
SW269	BIOAFA060	May-25	0.001	<0.0003
	BIOAFA061	May-25	0.001	<0.0003
	BIOAFA062	May-25	0.0175	<0.0003
	BIOAFA063	May-25	0.0118	0.0007

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD275	BIOAFA022	Nov-24	<0.005	<0.005
	BIOAFA023	Nov-24	<0.005	<0.005
SD285	BIOAFA043	May-25	0.0073	0.001
SW266	BIOAFA044	May-25	0.0021	<0.0003
	BIOAFA045	May-25	0.0006	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD281	BIOAFA015	Nov-24	0.0072	<0.0003
	BIOAFA014	Nov-24	0.0073	<0.0003
SD291	BIOAFA086	May-25	0.0179	0.0009
SW272	BIOAFA087	May-25	0.0066	<0.0003
	BIOAFA088	May-25	0.0024	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SD283	BIOAFA001	Nov-24	0.0057	<0.0003
	BIOAFA002	Nov-24	0.0029	<0.0003
SD293	BIOAFA091	May-25	0.0125	<0.0003
SW274	BIOAFA092	May-25	0.0068	<0.0003
	BIOAFA095	May-25	0.02	0.0015
	BIOAFA097	May-25	0.0052	<0.0003
	BIOAFA100	May-25	0.0037	<0.0003

SA03 SA06 SA05 SA04 SA01 SA02 SA02 SA08 SA08

SD294 SD284 SW275 SA01 SD293 SW274 SD283 SD292 SW273 SD282 SD291 SW272 SD281 SD290 SW271 SD280 SD289 SW270 SD279 SD287 SW268 SD277 SA02 SD288 SW269 SD278 SD286 SW267 SD276 SD285 SW266 SD275

Legend

- Surface Water / Sediment Sample Location
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Exceedance Criteria	Concentration (mg/kg)	
	PFOS+PFHxS	PFOA
PFAS NEMP 3.0 - Avian Biota Screening Value	0.0082	0.0024
PFAS NEMP 3.0 - Mammalian Biota Screening Value	0.0031	0.0028

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500

metres

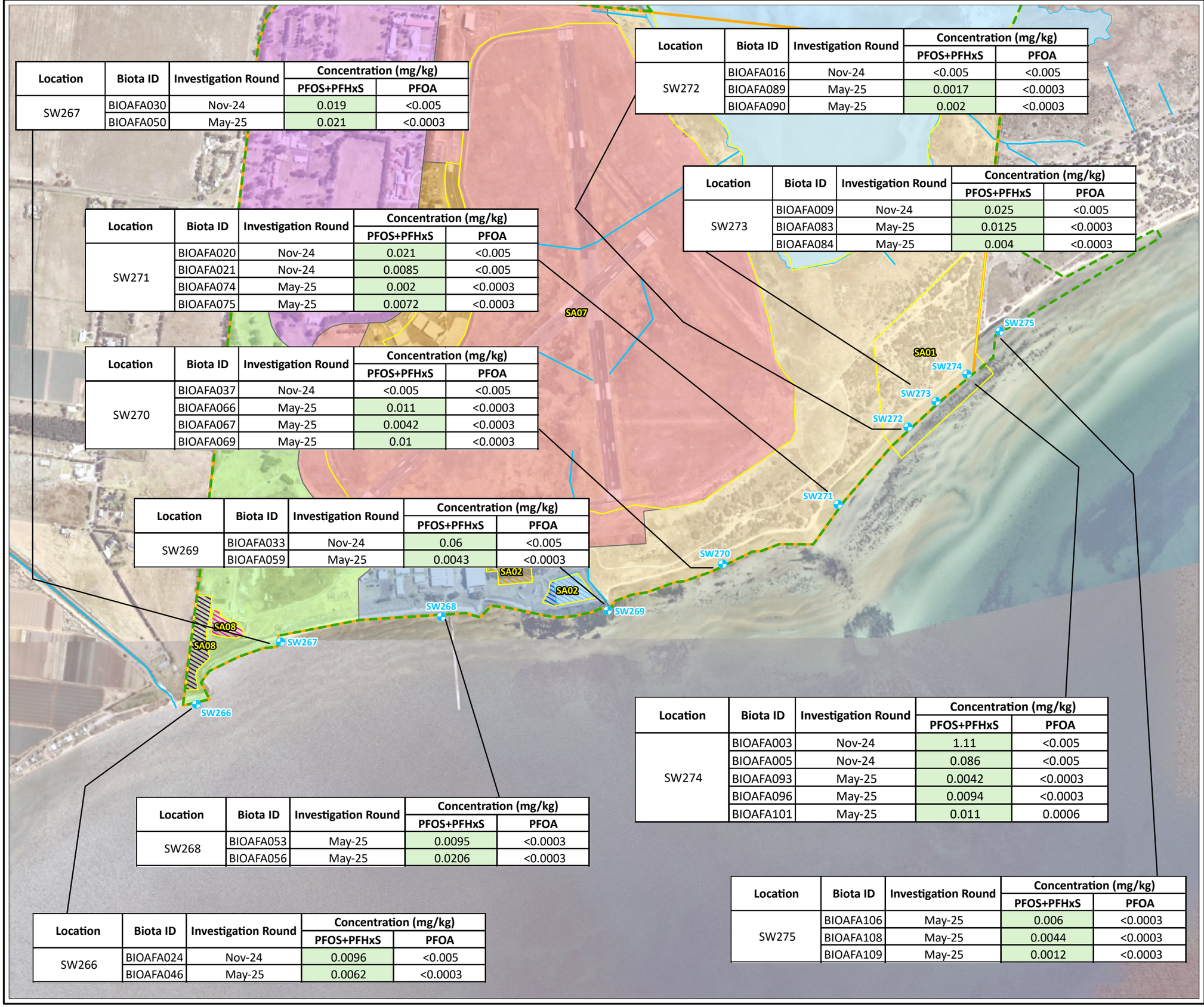
Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

PORT PHILLIP BAY BENTHIC INVERTEBRATES SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 10C

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_10C_Port Phillip Bay Benthic Invertebrates Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025



Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW267	BIOAFA030	Nov-24	0.019	<0.005
	BIOAFA050	May-25	0.021	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW271	BIOAFA020	Nov-24	0.021	<0.005
	BIOAFA021	Nov-24	0.0085	<0.005
	BIOAFA074	May-25	0.002	<0.0003
	BIOAFA075	May-25	0.0072	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW270	BIOAFA037	Nov-24	<0.005	<0.005
	BIOAFA066	May-25	0.011	<0.0003
	BIOAFA067	May-25	0.0042	<0.0003
	BIOAFA069	May-25	0.01	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW269	BIOAFA033	Nov-24	0.06	<0.005
	BIOAFA059	May-25	0.0043	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW268	BIOAFA053	May-25	0.0095	<0.0003
	BIOAFA056	May-25	0.0206	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW266	BIOAFA024	Nov-24	0.0096	<0.005
	BIOAFA046	May-25	0.0062	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW272	BIOAFA016	Nov-24	<0.005	<0.005
	BIOAFA089	May-25	0.0017	<0.0003
	BIOAFA090	May-25	0.002	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW273	BIOAFA009	Nov-24	0.025	<0.005
	BIOAFA083	May-25	0.0125	<0.0003
	BIOAFA084	May-25	0.004	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW274	BIOAFA003	Nov-24	1.11	<0.005
	BIOAFA005	Nov-24	0.086	<0.005
	BIOAFA093	May-25	0.0042	<0.0003
	BIOAFA096	May-25	0.0094	<0.0003
	BIOAFA101	May-25	0.011	0.0006

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW275	BIOAFA106	May-25	0.006	<0.0003
	BIOAFA108	May-25	0.0044	<0.0003
	BIOAFA109	May-25	0.0012	<0.0003

Legend

- Surface Water / Sediment Sample Location
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Exceedance Criteria	Concentration (mg/kg)	
	PFOS+PFHxS	PFOA
PFAS NEMP 3.0 - Avian Biota Screening Value	0.0082	0.0024
PFAS NEMP 3.0 - Mammalian Biota Screening Value	0.0031	0.0028

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

PORT PHILLIP BAY PREY FISH SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 10D

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_10D_Port Phillip Bay Prey Fish Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW274	BIOAFA094	May-25	0.057	<0.0003
	BIOAFA098	May-25	0.13	0.0007

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW273	BIOAFA080	May-25	0.0364	0.0003
	BIOAFA081	May-25	0.0664	0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW270	BIOAFA071	May-25	0.0207	<0.0003

Location	Biota ID	Investigation Round	Concentration (mg/kg)	
			PFOS+PFHxS	PFOA
SW267	BIOAFA051	May-25	0.0256	<0.0003

SA10 SA03 SA07 SA05 SA04 SA01 SW274 SW273 SW270 SA02 SA02 SA08 SA08 SW267

Legend

- Surface Water / Sediment Sample Location
- Watercourse
- Waterbody
- RAAF Base Point Cook Management Area
- RAAF Base Point Cook Site Boundary
- RAAF Base Point Cook Source Area

Source Area 2, 3 and 8 Components

- Fire Training Compound and Former Fire Station
- Rifle Range
- PS30
- PS31
- STP
- Soild Waste - Horizon Tank

Investigation Area

- Area A - Accommodation and Administration
- Area B - Rifle Stop Butt and Former STP
- Area C - Museum and Hangars
- Area D - Southern Hangars Area
- Area E - Airfield
- Area F - RAAF Lake, Dunes and Foreshore

Exceedance Criteria	Concentration (mg/kg)	
	PFOS+PFHxS	PFOA
PFAS NEMP 3.0 - Avian Biota Screening Value	0.0082	0.0024
PFAS NEMP 3.0 - Mammalian Biota Screening Value	0.0031	0.0028

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Job No: 66022

Client: Department of Defence

Version: Rev 0 | Date: 19/10/2026

Scale 1:10,500

0 250 500
metres

Coord. Sys. GDA2020 MGA Zone 55

RAAF Base Point Cook

PORT PHILLIP BAY PREDATORY FISH SAMPLE LOCATIONS AND TIER 1 EXCEEDANCES

FIGURE 10E

File Name: 66022_RAAF_PointCook_ERA_RevB; Name:66022_10E_Port Phillip Bay Predatory Fish Sample Locations and Tier 1 Exceedances
Reference: www.nearmap.com - Imagery Date: 15/10/2025

Appendix B Environmental data tables

Table 1 – Soil Analytical Results

								PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids												
								Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses												1							10					
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses												0.003							0.003					
Field ID	**Location Code**	**Depth**	**Date**	**Accessible Soil**	**Investigation Area**																			
SS129_180321	SS129	0 - 0.1	21 Mar 2018	Yes	Drainage line			<0.005	<0.005	<0.005	<0.005	**0.053**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS130_180321	SS130	0 - 0.1	21 Mar 2018	Yes	Drainage line			<0.005	<0.005	<0.005	<0.005	**0.0099**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS131_180321	SS131	0 - 0.1	21 Mar 2018	Yes	Drainage line			<0.005	<0.005	**0.0075**	<0.005	**0.27**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS132_180321	SS132	0 - 0.1	21 Mar 2018	Yes	Drainage line			<0.005	<0.005	<0.005	<0.005	**0.0092**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS157_180326	SS157	0 - 0.1	26 Mar 2018	Yes	Drainage line			<0.005	<0.005	**0.028**	<0.005	**0.95**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC126_180326	SS159	0 - 0.1	26 Mar 2018		Drainage line			<0.005	<0.005	**0.037**	**0.018**	**2.1**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC226_180326	SS159	0 - 0.1	26 Mar 2018		Drainage line			**0.0005**	**0.0006**	**0.0332**	**0.0253**	**1.34**	-	**0.0052**	<0.001	**0.0003**	**0.0018**	**0.0006**	**0.0018**	**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
SS159_180326	SS159	0 - 0.1	26 Mar 2018	Yes	Drainage line			<0.005	<0.005	**0.033**	**0.018**	**2**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS161_180326	SS161	0 - 0.1	26 Mar 2018	Yes	Drainage line			**0.015**	**0.057**	**1**	**0.16**	**14**	-	<0.005	<0.005	**0.012**	**0.1**	**0.014**	**0.068**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS162_180326	SS162	0 - 0.1	26 Mar 2018	Yes	Drainage line			**0.012**	**0.037**	**0.34**	**0.032**	**1.1**	-	<0.005	<0.005	**0.0093**	**0.067**	**0.0073**	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS163_180326	SS163	0 - 0.1	26 Mar 2018	Yes	Drainage line			<0.005	<0.005	<0.005	<0.005	**0.041**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS164_180326	SS164	0 - 0.1	26 Mar 2018	Yes	Drainage line			<0.005	<0.005	<0.005	<0.005	**0.02**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH058_0.05_180301	BH058	0.05 - 0.15	01 Mar 2018	Yes	On-base Other			<0.005	<0.005	**0.017**	<0.005	**0.072**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH231_0.0_240930	BH231	0 - 0.1	30 Sep 2024	Yes	On-base Other			<0.005	<0.005	**0.0050**	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH231_0.4_240930	BH231	0.4 - 0.5	30 Sep 2024	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH233_0.0_240930	BH233	0 - 0.1	30 Sep 2024	Yes	On-base Other			<0.005	<0.005	**0.0089**	<0.005	**0.058**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH233_0.85_240930	BH233	0.85 - 0.95	30 Sep 2024	No	On-base Other			**0.025**	**0.028**	**0.44**	**0.13**	**3.9**	**0.0051**	<0.005	**0.0067**	**0.011**	**0.085**	**0.0085**	**0.029**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH279_0.0_241004	BH279	0 - 0.1	04 Oct 2024	No	On-base Other			<0.005	<0.005	**0.013**	<0.005	**0.43**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH279_0.3_241004	BH279	0.3 - 0.4	04 Oct 2024	No	On-base Other			<0.005	<0.005	**0.036**	**0.0071**	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH280_0.0_241004	BH280	0 - 0.1	04 Oct 2024	No	On-base Other			<0.005	<0.005	**0.0062**	<0.005	**0.24**	<0.005	**0.0088**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH280_0.3_241004	BH280	0.3 - 0.4	04 Oct 2024	No	On-base Other			<0.005	<0.005	**0.0060**	<0.005	**0.58**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH297_1.4_241007	BH297	1.4 - 1.5	07 Oct 2024	No	On-base Other			<0.005	<0.005	**0.016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH297_1.9_241007	BH297	1.9 - 2	07 Oct 2024	No	On-base Other			<0.005	<0.005	**0.0053**	<0.005	**0.077**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH298_0.0_241007	BH298	0 - 0.1	07 Oct 2024	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.022**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH298_1.1_241007	BH298	1.1 - 1.2	07 Oct 2024	No	On-base Other			<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH298_1.4_241007	BH298	1.4 - 1.5	07 Oct 2024	No	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH298_1.9_241007	BH298	1.9 - 2	07 Oct 2024	No	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.0052**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH311_0.0_250122	BH311	0 - 0.1	22 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.0081**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH311_0.8_250122	BH311	0.8 - 0.9	22 Jan 2025	No	On-base Other			<0.005	<0.005	**0.0059**	<0.005	**0.016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH312_0.0_250122	BH312	0 - 0.1	22 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH312_0.7_250122	BH312	0.7 - 0.8	22 Jan 2025	No	On-base Other			<0.005	<0.005	**0.0064**	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH313_0.0_250122	BH313	0 - 0.1	22 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH313_0.9_250122	BH313	0.9 - 1.0	22 Jan 2025	No	On-base Other			<0.005	<0.005	**0.022**	<0.005	**0.041**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250122	BH313		22 Jan 2025		On-base Other			<0.005	<0.005	<0.005	<0.005	**0.026**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH314_0.0_250122	BH314	0 - 0.1	22 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH314_0.9_250122	BH314	0.9 - 1	22 Jan 2025	No	On-base Other			<0.005	<0.005	**0.0061**	<0.005	**0.0098**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_250122	BH314		22 Jan 2025		On-base Other			<0.005	<0.005	<0.005	<0.005	**0.0086**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH338_0.0_250128	BH338	0 - 0.1	28 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH338_0.6_250128	BH338	0.6 - 0.7	28 Jan 2025	No	On-base Other			<0.005	<0.005	**0.0096**	<0.005	**0.041**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH339_0.0_250128	BH339	0 - 0.1	28 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH339_0.6_250128	BH339	0.6 - 0.7	28 Jan 2025	No	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH354_0.0_250128	BH354	0 - 0.1	28 Jan 2025	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.0061**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH354_0.6_250128	BH354	0.6 - 0.7	28 Jan 2025	No	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH373_0.9_250407	BH373	0.9 - 1	07 Apr 2025	No	On-base Other			**0.12**	**0.13**	**0.98**	**0.023**	**0.15**	<0.005	<0.005	**0.015**	**0.021**	**0.11**	**0.029**	**0.057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH373_1.9_250407	BH373	1.9 - 2	07 Apr 2025	No	On-base Other			<0.005	<0.005	**0.015**	<0.005	**0.0072**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH373_2.9_250407	BH373	2.9 - 3	07 Apr 2025	No	On-base Other			<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC223_180315	MW005	0.05 - 0.15	15 Mar 2018		On-base Other			<0.0002	<0.0002	**0.0019**	<0.0002	**0.0122**	-	<0.0002	<0.001	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC123_180315	MW005	0.05 - 0.15	15 Mar 2018		On-base Other			<0.005	<0.005	<0.005	<0.005	**0.0087**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW005_0.05_180315	MW005	0.05 - 0.15	15 Mar 2018	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW005_0.1_180313	MW005	0.1 - 0.2	13 Mar 2018	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW013_0.05_180315	MW013	0.05 - 0.15	15 Mar 2018	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC106_180301	MW025	0.05 - 0.15	01 Mar 2018		On-base Other			<0.005	<0.005	**0.0053**	<0.005	**0.058**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC206_180301	MW025	0.05 - 0.15	01 Mar 2018		On-base Other			<0.0002	<0.0002	**0.0063**	**0.0008**	**0.0719**	-	**0.0007**	<0.001	<0.0002	**0.0004**	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW025_0.05_180301	MW025	0.05 - 0.15	01 Mar 2018	Yes	On-base Other			<0.005	<0.005	**0.0052**	<0.005	**0.062**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW025_0.6_180301	MW025	0.6 - 0.7	01 Mar 2018	No	On-base Other			**0.0064**	**0.01**	**0.14**	<0.005	**0.3**	-	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW025_0.9_180228	MW025	0.9 - 1	28 Feb 2018	No	On-base Other			<0.005	**0.0050**	**0.076**	<0.005	**0.086**	-	<0.005	<0.005	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW100_0.0-0.1_200508	MW100	0 - 0.1	08 May 2020	Yes	On-base Other			<0.0002	<0.0002	<0.0002	<0.0002	**0.0036**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC200_200508	MW100	0.3 - 0.4	08 May 2020		On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC100_200508	MW100	0.3 - 0.4	08 May 2020		On-base Other			<0.0002	<0.0002	**0.0005**	<0.0002	**0.0034**	-	<0.0002	<0.001	<0.0002	**0.0003**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW100_0.4-0.5_200508	MW100	0.4 - 0.5	08 May 2020	Yes	On-base Other			<0.0002	<0.0002	**0.0006**	<0.0002	**0.0026**	-	<0.0002	<0.001	<0.0002	**0.0003**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW100_2.9-3.0_200508	MW100	2.9 - 3	08 May 2020	No	On-base Other			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW101_0.0-0.1_200508	MW101	0 - 0.1	08 May 2020	Yes	On-base Other			<0.0002	<0.0002	**0.0005**	<0.0002	**0.0026**	-	<0.0002	<0.001	**0.0006**	**0.0006**	**0.0004**	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW101_2.9-3.0_200508	MW101	2.9 - 3	08 May 2020	No	On-base Other			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
MW102_0.0_181127	MW102	0.0 - 0.1	27 Nov 2018	Yes	On-base Other			<0.005	<0.005	<0.005	<0.005	**0.048**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW102_1.0_181127	MW102	1.0 - 1.1	27 Nov 2018	No	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW102_16.4_181203	MW102	16.4 - 16.5	03 Dec 2018	No	On-base Other			<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
MW105_0.0_181127	MW105	0.0 - 0.1	27 Nov 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW105_1.0_181127	MW105	1.0 - 1.1	27 Nov 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW106_0.0_181204	MW106	0.0 - 0.1	04 Dec 2018	Yes	On-base Other	<0.005	<0.005	**0.036**	<0.005	**0.17**	-	<0.005	<0.005	<0.005	**0.012**	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005
MW106_1.0_181204	MW106	1.0 - 1.1	04 Dec 2018	No	On-base Other	**0.06**	**0.077**	**1.2**	**0.017**	**0.099**	-	<0.005	**0.025**	**0.07**	**0.52**	**0.075**	**0.48**	<0.005	<0.005	<0.005	<0.005	<0.005
MW107_0.0_181127	MW107	0.0 - 0.1	27 Nov 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.029**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW107_1.0_181127	MW107	1.0 - 1.1	27 Nov 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW108_0.0_181205	MW108	0.0 - 0.1	05 Dec 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.018**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW108_1.0_181205	MW108	1.0 - 1.1	05 Dec 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW109_0.0_181205	MW109	0.0 - 0.1	05 Dec 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.035**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW109_1.0_181205	MW109	1.0 - 1.1	05 Dec 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC205_181205	MW110	0.0 - 0.1	05 Dec 2018		On-base Other	<0.0002	<0.0002	**0.0011**	<0.0002	**0.0183**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC104_181205	MW110	0.0 - 0.1	05 Dec 2018		On-base Other	<0.005	<0.005	<0.005	<0.005	**0.041**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW110_0.0_181205	MW110	0.0 - 0.1	05 Dec 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.041**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW110_1.0_181205	MW110	1.0 - 1.1	05 Dec 2018	No	On-base Other	<0.005	<0.005	**0.0067**	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW111_0.1_181204	MW111	0.1 - 0.2	04 Dec 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW111_0.3_181204	MW111	0.3 - 0.4	04 Dec 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0066**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW111_1.0_181204	MW111	1.0 - 1.1	04 Dec 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS187_180326	SS187	0 - 0.1	26 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS188_180326	SS188	0 - 0.1	26 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.012**	<0.005	**0.088**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_SS251_220713	SS251	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0006**	<0.0002	**0.0179**	-	<0.0002	<0.001	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS252_220713	SS252	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0005**	**0.0004**	**0.0057**	**0.0005**	**0.0298**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002	**0.0003**	<0.0002	<0.0005
0932_SS253_220713	SS253	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0019**	**0.0004**	**0.0400**	-	**0.0004**	<0.001	<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS254_220713	SS254	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0002**	<0.0002	**0.0118**	-	**0.0005**	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	**0.0005**	**0.0002**	<0.0002	<0.0002	<0.0005
0932_SS255_220713	SS255	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0004**	**0.0004**	**0.0095**	**0.0005**	**0.0545**	-	**0.0005**	<0.001	<0.0002	**0.0016**	**0.0002**	**0.0017**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS256_220713	SS256	0 - 0.1	13 Jul 2022	No	On-base Other	<0.0002	<0.0002	**0.0007**	<0.0002	**0.0067**	-	**0.0002**	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS257_220713	SS257	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0009**	**0.0009**	**0.0081**	**0.0007**	**0.0366**	-	**0.0005**	<0.001	<0.0002	**0.0004**	<0.0002	**0.0004**	<0.0002	<0.0002	<0.0002	**0.0007**	<0.0005
0932_SS258_220713	SS258	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0004**	**0.0005**	**0.0042**	**0.0005**	**0.0273**	-	<0.0002	<0.001	<0.0002	**0.0004**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS259_220713	SS259	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0004**	**0.0005**	**0.0060**	**0.0005**	**0.0355**	-	**0.0006**	<0.001	<0.0002	**0.0005**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_QC201_220713	SS260	0 - 0.1	13 Jul 2022		On-base Other	**0.0059**	<0.005	**0.027**	<0.005	**0.24**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_220713	SS260	0 - 0.1	13 Jul 2022		On-base Other	**0.0074**	**0.0023**	**0.0320**	**0.0036**	**0.250**	-	**0.0016**	**0.003**	**0.0053**	**0.0095**	**0.0002**	**0.0015**	**0.0004**	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS260_220713	SS260	0 - 0.1	13 Jul 2022	No	On-base Other	**0.0080**	**0.0020**	**0.0158**	**0.0019**	**0.192**	-	**0.0010**	**0.003**	**0.0053**	**0.0100**	<0.0002	**0.0009**	**0.0004**	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS261_220713	SS261	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0008**	<0.0002	**0.0173**	-	**0.0002**	<0.001	<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0005
0932_SS262_220713	SS262	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0003**	<0.0002	**0.0058**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS263_220713	SS263	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	**0.0007**	<0.0002	**0.0266**	-	**0.0004**	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**	**0.0003**	<0.0002	<0.0002	<0.0005
0932_SS264_220713	SS264	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0074**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS265_220713	SS265	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0033**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SS266_220713	SS266	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0014**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_QC202_220713	SS267	0 - 0.1	13 Jul 2022		On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_220713	SS267	0 - 0.1	13 Jul 2022		On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0041**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002	**0.0004**	<0.0002	**0.0002**	<0.0002	<0.0005
0932_SS267_220713	SS267	0 - 0.1	13 Jul 2022	Yes	On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0038**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	**0.0005**	<0.0002	**0.0003**	<0.0002	<0.0005
0932_SS268_220713	SS268	0 - 0.1	13 Jul 2022	Yes	On-base Other	**0.0012**	**0.0010**	**0.0024**	<0.0002	**0.0146**	-	<0.0002	<0.001	<0.0002	**0.0009**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
TP101_0.0_180316	TP101	0 - 0	16 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP101_0.5_180316	TP101	0.5 - 0.5	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP101_1.0_180316	TP101	1 - 1	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP102_0.0_180316	TP102	0 - 0	16 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP102_0.5_180316	TP102	0.5 - 0.5	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP102_1.0_180316	TP102	1 - 1	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0087**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP103_0.0_180316	TP103	0 - 0	16 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP103_0.5_180316	TP103	0.5 - 0.5	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP103_1.0_180316	TP103	1 - 1	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP104_0.0_180316	TP104	0 - 0	16 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP104_0.5_180316	TP104	0.5 - 0.5	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP104_1.0_180316	TP104	1 - 1	16 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0073**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP119_0.0_180315	TP119	0 - 0.1	15 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP119_0.4_180315	TP119	0.4 - 0.5	15 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP120_0.0_180315	TP120	0 - 0.1	15 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP120_0.5_180315	TP120	0.5 - 0.6	15 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP121_0.0_180315	TP121	0 - 0.1	15 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP121_0.6_180315	TP121	0.6 - 0.7	15 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP122_0.0_180315	TP122	0 - 0.1	15 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0089**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP122_0.5_180315	TP122	0.5 - 0.6	15 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP123_0.0_180314	TP123	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0063**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP123_0.4_180314	TP123	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP124_0.0_180314	TP124	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP124_0.4_180314	TP124	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP125_0.0_180314	TP125	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
TP125_0.4_180314	TP125	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP126_0.0_180314	TP126	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0072**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP126_0.4_180314	TP126	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP127_0.0_180314	TP127	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP127_0.4_180314	TP127	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP128_0.0_180314	TP128	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP128_0.4_180314	TP128	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP129_0.0_180314	TP129	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP129_0.4_180314	TP129	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC122_180314	TP130	0 - 0.1	14 Mar 2018		On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC222_180314	TP130	0 - 0.1	14 Mar 2018		On-base Other	<0.0002	<0.0002	**0.0027**	**0.0003**	**0.0145**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
TP130_0.0_180314	TP130	0 - 0.1	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP130_0.4_180314	TP130	0.4 - 0.5	14 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP140_0.05_180305	TP140	0.05 - 0.15	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP140_0.4_180305	TP140	0.4 - 0.5	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP143_0.05_180306	TP143	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0055**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP143_1.1_180306	TP143	1.1 - 1.2	06 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0061**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP144_0.05_180306	TP144	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP144_0.9_180306	TP144	0.9 - 1	06 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.033**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP145_0.05_180306	TP145	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP145_1.1_180306	TP145	1.1 - 1.2	06 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP146_0.05_180306	TP146	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP146_1.0_180306	TP146	1 - 1.1	06 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP147_0.05_180308	TP147	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.022**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP148_0.05_180305	TP148	0.05 - 0.15	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.12**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP148_0.4_180305	TP148	0.4 - 0.5	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.032**	<0.005	**0.23**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP148_1.2_180228	TP148	1.2 - 1.3	28 Feb 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0057**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP149_0.05_180308	TP149	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP150_0.05_180308	TP150	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP150_0.4_180308	TP150	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.01**	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP151_0.05_180302	TP151	0.05 - 0.15	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP151_0.4_180302	TP151	0.4 - 0.5	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0078**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP152_0.05_180302	TP152	0.05 - 0.15	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.012**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP152_1.4_180302	TP152	1.4 - 1.5	02 Mar 2018	No	On-base Other	<0.005	<0.005	**0.011**	<0.005	**0.033**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP153_0.05_180308	TP153	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.026**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC215_180308	TP154	0.05 - 0.15	08 Mar 2018		On-base Other	<0.0002	<0.0002	**0.0019**	<0.0002	**0.0221**	-	<0.0002	<0.001	<0.0002	**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC115_180308	TP154	0.05 - 0.15	08 Mar 2018		On-base Other	<0.005	<0.005	<0.005	<0.005	**0.034**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP154_0.05_180308	TP154	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.037**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP154_0.4_180308	TP154	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.0060**	<0.005	**0.079**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP155_0.2_180309	TP155	0.2 - 0.2	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.019**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP155_0.5_180309	TP155	0.5 - 0.5	09 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP156_0.2_180309	TP156	0.2 - 0.2	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP156_0.5_180309	TP156	0.5 - 0.5	09 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0061**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP157_0.2_180309	TP157	0.2 - 0.2	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP157_0.5_180309	TP157	0.5 - 0.5	09 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP158_0.2_180309	TP158	0.2 - 0.2	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0056**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP158_0.5_180309	TP158	0.5 - 0.5	09 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC209_180305	TP167	0.05 - 0.15	05 Mar 2018		On-base Other	<0.0002	<0.0002	**0.0016**	<0.0002	**0.0340**	-	<0.0002	<0.001	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC109_180305	TP167	0.05 - 0.15	05 Mar 2018		On-base Other	<0.005	<0.005	<0.005	<0.005	**0.046**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP167_0.05_180302	TP167	0.05 - 0.15	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.031**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP167_1.0_180302	TP167	1 - 1.1	02 Mar 2018	No	On-base Other	<0.005	<0.005	**0.0086**	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP168_0.05_180309	TP168	0.05 - 0.15	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0075**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP169_0.05_180309	TP169	0.05 - 0.15	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0070**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP170_0.05_180309	TP170	0.05 - 0.15	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0080**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP171_0.05_180309	TP171	0.05 - 0.15	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.013**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP171_0.2_180309	TP171	0.2 - 0.3	09 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP172_0.05_180302	TP172	0.05 - 0.15	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP172_0.4_180302	TP172	0.4 - 0.5	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.011**	<0.005	**0.034**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP173_0.05_180308	TP173	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.059**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP174_0.05_180308	TP174	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.098**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP175_0.05_180308	TP175	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP176_0.05_180308	TP176	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.016**	<0.005	**0.13**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP176_0.5_180308	TP176	0.5 - 0.6	08 Mar 2018	No	On-base Other	<0.005	<0.005	**0.018**	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP177_0.05_180308	TP177	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	**0.0061**	**0.083**	**0.014**	**0.54**	-	<0.005	<0.005	<0.005	**0.016**	<0.005	**0.0059**	<0.005	<0.005	<0.005	<0.005	<0.005
TP177_0.5_180308	TP177	0.5 - 0.6	08 Mar 2018	No	On-base Other	<0.005	<0.005	**0.029**	<0.005	<0.005	-	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP178_0.05_180308	TP178	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	**0.02**	**0.024**	**0.3**	**0.071**	**1.4**	-	<0.005	<0.005	**0.01**	**0.055**	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																	
TP178_0.4_180308	TP178	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	**0.0068**	**0.047**	<0.005	<0.005	-	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP179_0.05_180308	TP179	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.0065**	<0.005	**0.16**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP179_0.4_180308	TP179	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.0090**	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP180_0.05_180308	TP180	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	**0.0053**	**0.012**	**0.21**	**0.028**	**0.58**	-	<0.005	<0.005	<0.005	**0.027**	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP180_0.4_180308	TP180	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP181_0.05_180305	TP181	0.05 - 0.15	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.035**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP181_0.4_180305	TP181	0.4 - 0.5	05 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.0091**	<0.005	**0.069**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP182_0.05_180308	TP182	0.05 - 0.15	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	**0.054**	<0.005	**0.15**	-	<0.005	<0.005	<0.005	**0.0060**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP182_0.4_180308	TP182	0.4 - 0.5	08 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP183_0.05_180306	TP183	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP184_0.05_180306	TP184	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0091**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC212_180306	TP185	0.05 - 0.15	06 Mar 2018		On-base Other	<0.0002	<0.0002	<0.0002	<0.0002	**0.0027**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC112_180306	TP185	0.05 - 0.15	06 Mar 2018		On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP185_0.05_180306	TP185	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0056**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP186_0.05_180306	TP186	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP187_0.05_180302	TP187	0.05 - 0.15	02 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.012**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP187_0.9_180302	TP187	0.9 - 1	02 Mar 2018	No	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP188_0.05_180306	TP188	0.05 - 0.15	06 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP193_0.4_180319	TP193	0.4 - 0.4	19 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.0091**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP194_0.4_180319	TP194	0.4 - 0.4	19 Mar 2018	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP206_0.0_241018	TP206	0 - 0.1	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP206_0.9_241018	TP206	0.9 - 1	18 Oct 2024	No	On-base Other	<0.005	<0.005	**0.0067**	<0.005	**0.0070**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP207_0.0_241018	TP207	0 - 0.1	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	**0.0091**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP207_0.9_241018	TP207	0.9 - 1	18 Oct 2024	No	On-base Other	<0.005	<0.005	**0.04**	<0.005	**0.052**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP212_0.0_241018	TP212	0 - 0.1	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP212_0.9_241018	TP212	0.9 - 1	18 Oct 2024	No	On-base Other	<0.005	<0.005	**0.014**	<0.005	**0.0079**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC202_241021	TP212		18 Oct 2024		On-base Other	<0.00010	<0.00010	**0.0012**	**0.00013**	**0.015**	-	<0.00020	<0.00020	<0.00020	**0.00031**	<0.00010	**0.00055**	<0.00010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_TP213_0.0_241018	TP213	0 - 0.1	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP213_0.5_241018	TP213	0.5 - 0.6	18 Oct 2024	No	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP214_0.0_241018	TP214	0 - 0.1	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP214_0.2_241018	TP214	0.2 - 0.3	18 Oct 2024	Yes	On-base Other	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH299_0.0_250124	BH299	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0060**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH299_1.8_250124	BH299	1.8 - 1.9	24 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH300_0.0_250124	BH300	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH300_0.5_250124	BH300	0.5 - 0.6	24 Jan 2025	No	SA01	<0.005	<0.005	**0.039**	<0.005	**0.25**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0070**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH301_0.0_250124	BH301	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH301_1.0_250124	BH301	1 - 1.1	24 Jan 2025	No	SA01	<0.005	<0.005	**0.025**	<0.005	**0.46**	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH302_0.0_250124	BH302	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH302_0.6_250124	BH302	0.6 - 0.7	24 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.54**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH303_0.0_250124	BH303	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.44**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH303_0.5_250124	BH303	0.5 - 0.6	24 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.044**	**0.0065**	**0.0084**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH304_0.0_250124	BH304	0 - 0.1	24 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH304_0.7_250124	BH304	0.7 - 0.8	24 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.029**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250124	BH304		24 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.051**	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH305_0.0_250122	BH305	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.072**	**0.014**	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH305_0.3_250122	BH305	0.3 - 0.4	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.039**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH306_0.0_250122	BH306	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0067**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH306_0.3_250122	BH306	0.3 - 0.4	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.011**	**0.0063**	**0.0051**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH307_0.0_250122	BH307	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	**0.018**	<0.005	**0.32**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH307_0.3_250122	BH307	0.3 - 0.4	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**1.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH308_0.0_250122	BH308	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	**0.0079**	<0.005	**0.099**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH308_0.4_250122	BH308	0.4 - 0.5	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.059**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH309_0.0_250122	BH309	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH309_0.5_250122	BH309	0.5 - 0.6	22 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.12**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH310_0.0_250122	BH310	0 - 0.1	22 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.077**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH310_0.3_250122	BH310	0.3 - 0.4	22 Jan 2025	Yes	SA01	<0.005	<0.005	**0.012**	<0.005	**0.3**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH310_0.9_250122	BH310	0.9 - 1	22 Jan 2025	No	SA01	-	-	**0.02**	-	**0.45**	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
0932_BH310_1.4_250122	BH310	1.4 - 1.5	22 Jan 2025	No	SA01	-	-	**0.012**	-	**0.064**	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
0932_BH310_2.6_250122	BH310	2.6 - 2.7	22 Jan 2025	No	SA01	-	-	<0.005	-	<0.005	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
0932_BH310_3.5_250122	BH310	3.5 - 3.6	22 Jan 2025	No	SA01	-	-	<0.005	-	<0.005	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
0932_BH310_3.9_250122	BH310	3.9 - 4	22 Jan 2025	No	SA01	-	-	<0.005	-	<0.005	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
0932_BH315_0.0_250128	BH315	0 - 0.1	28 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH315_1.0_250128	BH315	1 - 1.1	28 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250123	BH315		23 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.049**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH316_0.0_250129	BH316	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	**0.0056**	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH316_0.3_250129	BH316	0.3 - 0.4	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
0932_BH316_1.9_250129	BH316	1.9 - 2	29 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.027**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH316_3.5_250129	BH316	3.5 - 3.6	29 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH317_0.0_250130	BH317	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH317_0.9_250130	BH317	0.9 - 1	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.032**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH317_2.5_250130	BH317	2.5 - 2.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.06**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH317_3.0_250130	BH317	3 - 3.1	30 Jan 2025	No	SA01	<0.005	<0.005	**0.0100**	<0.005	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH318_0.0_250130	BH318	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	**0.0052**	<0.005	**0.068**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH318_0.5_250130	BH318	0.5 - 0.6	30 Jan 2025	No	SA01	**0.0099**	**0.0068**	**0.041**	<0.005	**0.6**	**0.012**	**0.014**	<0.005	**0.0074**	**0.034**	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_250130	BH318		30 Jan 2025		SA01	**0.0059**	<0.005	**0.028**	<0.005	**0.38**	**0.0071**	**0.0097**	<0.005	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH319_0.0_250130	BH319	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH319_0.4_250130	BH319	0.4 - 0.5	30 Jan 2025	Yes	SA01	<0.005	<0.005	**0.034**	<0.005	**0.067**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0077**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH319_1.5_250130	BH319	1.5 - 1.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.0079**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250130	BH319		30 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH320_0.0_250130	BH320	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.083**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH320_1.1_250130	BH320	1.1 - 1.2	30 Jan 2025	No	SA01	<0.005	<0.005	**0.024**	<0.005	**0.34**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0052**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH320_2.0_250130	BH320	2 - 2.1	30 Jan 2025	No	SA01	<0.005	<0.005	**0.0093**	<0.005	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH320_2.6_250130	BH320	2.6 - 2.7	30 Jan 2025	No	SA01	<0.005	<0.005	**0.019**	<0.005	**0.035**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC111_250130	BH320		30 Jan 2025		SA01	<0.005	<0.005	**0.03**	<0.005	**0.033**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0052**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH321_0.0_250130	BH321	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH321_0.5_250130	BH321	0.5 - 0.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.28**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH321_2.3_250130	BH321	2.3 - 2.4	30 Jan 2025	No	SA01	<0.005	<0.005	**0.014**	<0.005	**0.081**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH321_2.7_250130	BH321	2.7 - 2.8	30 Jan 2025	No	SA01	<0.005	<0.005	**0.018**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH322_0.0_250131	BH322	0 - 0.1	31 Jan 2025	Yes	SA01	<0.005	<0.005	**0.021**	<0.005	**0.22**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH322_0.9_250131	BH322	0.9 - 1	31 Jan 2025	No	SA01	**0.0095**	**0.016**	**0.3**	**0.013**	**1.6**	<0.005	<0.005	<0.005	**0.0052**	**0.037**	<0.005	**0.027**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH322_1.2_250131	BH322	1.2 - 1.3	31 Jan 2025	No	SA01	<0.005	<0.005	**0.077**	<0.005	**0.14**	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH322_2.4_250131	BH322	2.4 - 2.5	31 Jan 2025	No	SA01	<0.005	<0.005	**0.044**	<0.005	**0.37**	<0.005	<0.005	<0.005	<0.005	**0.0084**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250131	BH322		31 Jan 2025		SA01	<0.005	<0.005	**0.018**	<0.005	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH323_0.0_250130	BH323	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	**0.034**	<0.005	**0.57**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH323_0.9_250130	BH323	0.9 - 1	30 Jan 2025	No	SA01	<0.005	**0.0051**	**0.2**	**0.028**	**2.3**	**0.013**	**0.013**	<0.005	<0.005	**0.013**	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH323_2.0_250130	BH323	2 - 2.1	30 Jan 2025	No	SA01	<0.005	<0.005	**0.0065**	<0.005	**0.033**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH323_3.0_250130	BH323	3 - 3.1	30 Jan 2025	No	SA01	<0.005	<0.005	**0.017**	<0.005	**0.067**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC113_250130	BH323		30 Jan 2025		SA01	<0.005	<0.005	**0.013**	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH324_0.0_250130	BH324	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.024**	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH324_0.5_250130	BH324	0.5 - 0.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH325_0.0_250131	BH325	0 - 0.1	31 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0091**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH325_1.0_250131	BH325	1 - 1.1	31 Jan 2025	No	SA01	<0.005	<0.005	**0.032**	**0.0053**	**0.6**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0078**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH326_0.0_250131	BH326	0 - 0.1	31 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.03**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH326_1.1_250131	BH326	1.1 - 1.2	31 Jan 2025	No	SA01	<0.005	<0.005	**0.075**	<0.005	**0.45**	<0.005	<0.005	<0.005	<0.005	**0.0073**	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH327_0.0_250131	BH327	0 - 0.1	31 Jan 2025	Yes	SA01	<0.005	<0.005	**0.0059**	<0.005	**0.081**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH327_0.9_250131	BH327	0.9 - 1	31 Jan 2025	No	SA01	<0.005	<0.005	**0.073**	**0.0056**	**0.77**	<0.005	<0.005	<0.005	<0.005	**0.02**	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH327_2.5_250131	BH327	2.5 - 2.6	31 Jan 2025	No	SA01	<0.005	<0.005	**0.035**	<0.005	**0.078**	<0.005	<0.005	<0.005	<0.005	**0.0059**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH327_2.7_250131	BH327	2.7 - 2.8	31 Jan 2025	No	SA01	<0.005	<0.005	**0.038**	<0.005	**0.048**	<0.005	<0.005	<0.005	<0.005	**0.0056**	<0.005	**0.0069**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH328_0.0_250130	BH328	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.096**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH328_0.8_250130	BH328	0.8 - 0.9	30 Jan 2025	No	SA01	<0.005	<0.005	**0.021**	**0.012**	**1.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH328_2.4_250130	BH328	2.4 - 2.5	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.058**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH328_2.7_250130	BH328	2.7 - 2.8	30 Jan 2025	No	SA01	<0.005	<0.005	**0.036**	<0.005	**0.15**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0087**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH329_0.0_250130	BH329	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH329_0.3_250130	BH329	0.3 - 0.4	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.017**	<0.005	<0.005	<0.005	<0.005	**0.0091**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH329_3.0_250130	BH329	3 - 3.1	30 Jan 2025	No	SA01	<0.005	<0.005	**0.0090**	<0.005	**0.0088**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH329_3.9_250130	BH329	3.9 - 4	30 Jan 2025	No	SA01	<0.005	<0.005	**0.0080**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC108_250130	BH329		30 Jan 2025		SA01	<0.005	<0.005	**0.0095**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH330_0.0_250130	BH330	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.058**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH330_0.7_250130	BH330	0.7 - 0.8	30 Jan 2025	No	SA01	<0.005	<0.005	**0.026**	<0.005	**1.5**	<0.005	<0.005	<0.005	<0.005	**0.0082**	<0.005	**0.0068**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH331_0.0_250130	BH331	0 - 0.1	30 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH331_1.5_250130	BH331	1.5 - 1.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH331_2.5_250130	BH331	2.5 - 2.6	30 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH331_3.5_250130	BH331	3.5 - 3.6	30 Jan 2025	No	SA01	<0.005	<0.005	**0.037**	<0.005	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH332_0.0_250123	BH332	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.032**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH332_0.6_250123	BH332	0.6 - 0.7	23 Jan 2025	No	SA01	<0.005	<0.005	**0.055**	**0.0060**	**0.29**	<0.005	<0.005	<0.005	<0.005	**0.0061**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH333_0.0_250129	BH333	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.028**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH333_0.9_250129	BH333	0.9 - 1	29 Jan 2025	No	SA01	<0.005	<0.005	**0.0074**	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250129	BH333		29 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.026**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH334_0.0_250123	BH334	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.03**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH334_1.2_250123	BH334	1.2 - 1.3	23 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH335_0.0_250128	BH335	0 - 0.1	28 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH335_0.8_250128	BH335	0.8 - 0.9	28 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.0063**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
0932_BH335_2.0_250128	BH335	2 - 2.1	28 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH335_2.3_250130	BH335	2.3 - 2.4	28 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH336_0.0_250129	BH336	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.031**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH336_1.0_250129	BH336	1 - 1.1	29 Jan 2025	No	SA01	<0.005	<0.005	**0.011**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC103_250129	BH336		29 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH337_0.0_250123	BH337	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH337_0.3_250123	BH337	0.3 - 0.4	23 Jan 2025	Yes	SA01	<0.005	<0.005	**0.0062**	<0.005	**0.02**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH340_0.0_250128	BH340	0 - 0.1	28 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH340_0.8_250128	BH340	0.8 - 0.9	28 Jan 2025	No	SA01	<0.005	<0.005	**0.0054**	<0.005	**0.0063**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH341_0.0_250123	BH341	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0064**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH341_1.0_250123	BH341	1 - 1.1	23 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH342_0.0_250123	BH342	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH342_1.2_250123	BH342	1.2 - 1.3	23 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH342_1.9_250122	BH342	1.9 - 2	23 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH343_0.0_250123	BH343	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH343_0.3_250123	BH343	0.3 - 0.4	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH344_0.0_250129	BH344	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.1**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH344_0.5_250129	BH344	0.5 - 0.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.018**	<0.005	**0.3**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH344_2.0_250129	BH344	2 - 2.1	29 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH344_3.0_250129	BH344	3 - 3.1	29 Jan 2025	No	SA01	<0.005	<0.005	**0.01**	<0.005	**0.0085**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH345_0.0_250129	BH345	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.24**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH345_0.5_250129	BH345	0.5 - 0.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.081**	**0.023**	**1**	<0.005	<0.005	<0.005	<0.005	**0.0085**	<0.005	**0.0051**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH345_1.5_250129	BH345	1.5 - 1.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.013**	<0.005	**0.61**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH345_2.5_250129	BH345	2.5 - 2.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.0080**	<0.005	**0.36**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH346_0.0_250129	BH346	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH346_0.6_250129	BH346	0.6 - 0.7	29 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**1.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH346_2.0_250129	BH346	2 - 2.1	29 Jan 2025	No	SA01	<0.005	<0.005	**0.045**	<0.005	**0.076**	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	**0.0075**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH346_3.0_250129	BH346	3 - 3.1	29 Jan 2025	No	SA01	<0.005	<0.005	**0.015**	<0.005	**0.0072**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH347_0.0_250129	BH347	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.075**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH347_0.7_250129	BH347	0.7 - 0.8	29 Jan 2025	No	SA01	<0.005	<0.005	**0.045**	<0.005	**0.34**	<0.005	<0.005	<0.005	<0.005	**0.0050**	<0.005	**0.0093**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH347_1.4_250129	BH347	1.4 - 1.5	29 Jan 2025	No	SA01	<0.005	<0.005	**0.02**	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH347_2.4_250129	BH347	2.4 - 2.5	29 Jan 2025	No	SA01	<0.005	<0.005	**0.013**	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH348_0.0_250131	BH348	0 - 0.1	31 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.022**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH348_1.1_250131	BH348	1.1 - 1.2	31 Jan 2025	No	SA01	<0.005	<0.005	**0.11**	**0.0072**	**0.45**	<0.005	<0.005	<0.005	<0.005	**0.0076**	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH349_0.0_250129	BH349	0 - 0.1	29 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH349_1.5_250129	BH349	1.5 - 1.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.023**	<0.005	**0.2**	<0.005	<0.005	<0.005	<0.005	**0.0063**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH349_3.5_250129	BH349	3.5 - 3.6	29 Jan 2025	No	SA01	<0.005	<0.005	**0.048**	**0.0069**	**0.59**	<0.005	<0.005	<0.005	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH349_3.7_250129	BH349	3.7 - 3.8	29 Jan 2025	No	SA01	<0.005	<0.005	**0.015**	<0.005	**0.081**	<0.005	<0.005	<0.005	<0.005	**0.0055**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH350_0.0_250123	BH350	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	**0.014**	<0.005	**0.053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH350_1.5_250122	BH350	1.5 - 1.6	23 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	**0.035**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH350_2.5_250122	BH350	2.5 - 2.6	23 Jan 2025	No	SA01	<0.005	<0.005	**0.025**	<0.005	**0.043**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH351_0.0_250123	BH351	0 - 0.1	23 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.041**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH351_1.0_250123	BH351	1 - 1.1	23 Jan 2025	No	SA01	<0.005	<0.005	**0.0087**	<0.005	**0.035**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH352_0.0_250128	BH352	0 - 0.1	28 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0080**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH352_0.8_250128	BH352	0.8 - 0.9	28 Jan 2025	No	SA01	<0.005	<0.005	**0.0076**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_250128	BH352		28 Jan 2025		SA01	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH353_0.0_250128	BH353	0 - 0.1	28 Jan 2025	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0065**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH353_0.6_250128	BH353	0.6 - 0.7	28 Jan 2025	No	SA01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250128	BH353		28 Jan 2025		SA01	<0.005	<0.005	<0.005	<0.005	**0.0063**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS165_180326	SS165	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.037**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS166_180327	SS166	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.037**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS167_180326	SS167	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0077**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS168_180326	SS168	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.057**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS169_180326	SS169	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.022**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS170_180326	SS170	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.13**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS171_180326	SS171	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.018**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS172_180326	SS172	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.02**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS173_180327	SS173	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.086**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS174_180326	SS174	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.021**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS175_180327	SS175	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	**0.048**	**0.0060**	**0.47**	-	<0.005	<0.005	<0.005	**0.0061**	<0.005	**0.0067**	<0.005	<0.005	<0.005	<0.005	<0.005
SS176_180326	SS176	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0088**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS177_180327	SS177	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0056**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS179_180327	SS179	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS180_180327	SS180	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.039**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS181_180327	SS181	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0054**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS182_180327	SS182	0 - 0.1	27 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.077**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
QC128_180326	SS184	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0064**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS184_180326	SS184	0 - 0.1	26 Mar 2018	Yes	SA01	<0.005	<0.005	<0.005	<0.005	**0.0086**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC228_180327	SS184	0 - 0.1	27 Mar 2018	Yes	SA01	<0.0002	<0.0002	<0.0002	<0.0002	**0.0036**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
BH041_0.15_180323	BH041	0.15 - 0.25	23 Mar 2018	No	SA02	<0.005	<0.005	**0.0057**	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH041_0.3_180323	BH041	0.3 - 0.4	23 Mar 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH042_0.15_180323	BH042	0.15 - 0.25	23 Mar 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.047**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH042_0.3_180323	BH042	0.3 - 0.4	23 Mar 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.062**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH043_0.2_180227	BH043	0.2 - 0.3	27 Feb 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.057**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH043_0.4_180227	BH043	0.4 - 0.5	27 Feb 2018	No	SA02	<0.005	<0.005	**0.016**	<0.005	**0.13**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH043_0.9_180227	BH043	0.9 - 1	27 Feb 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.0094**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH044_0.15_180227	BH044	0.15 - 0.25	27 Feb 2018	Yes	SA02	<0.005	<0.005	**0.12**	**0.0089**	**0.38**	-	<0.005	<0.005	<0.005	**0.0083**	<0.005	**0.046**	<0.005	<0.005	<0.005	<0.005	<0.005
BH044_0.5_180227	BH044	0.5 - 0.6	27 Feb 2018	No	SA02	<0.005	<0.005	**0.093**	<0.005	**1.1**	-	<0.005	<0.005	<0.005	**0.011**	<0.005	**0.022**	<0.005	<0.005	<0.005	<0.005	<0.005
BH044_1.1_180227	BH044	1.1 - 1.2	27 Feb 2018	No	SA02	<0.005	<0.005	**0.018**	<0.005	**0.3**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC103_180228	BH045	0.2 - 0.3	28 Feb 2018		SA02	<0.005	<0.005	**0.0061**	<0.005	**0.097**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC203_180228	BH045	0.2 - 0.3	28 Feb 2018		SA02	**0.0002**	**0.0004**	**0.0094**	**0.0010**	**0.101**	-	**0.0010**	<0.001	<0.0002	**0.0005**	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
BH045_0.2_180228	BH045	0.2 - 0.3	28 Feb 2018	No	SA02	<0.005	<0.005	**0.012**	<0.005	**0.15**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH045_0.4_180228	BH045	0.4 - 0.5	28 Feb 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.11**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH046_0.15_180228	BH046	0.15 - 0.25	28 Feb 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.57**	-	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH046_0.3_180228	BH046	0.3 - 0.4	28 Feb 2018	No	SA02	<0.005	<0.005	**0.016**	<0.005	**0.36**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH046_0.6_180228	BH046	0.6 - 0.7	28 Feb 2018	No	SA02	<0.005	<0.005	**0.024**	<0.005	**0.11**	-	<0.005	<0.005	<0.005	**0.0073**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH047_0.15_180323	BH047	0.15 - 0.25	23 Mar 2018	No	SA02	<0.005	**0.012**	**0.18**	**0.027**	**1.4**	-	<0.005	<0.005	<0.005	**0.036**	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005
BH047_0.4_180323	BH047	0.4 - 0.5	23 Mar 2018	No	SA02	<0.005	<0.005	**0.28**	**0.091**	**2.9**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.023**	<0.005	<0.005	<0.005	<0.005	<0.005
BH048_0.15_180227	BH048	0.15 - 0.25	27 Feb 2018	Yes	SA02	**0.0060**	**0.0055**	**0.032**	<0.005	**0.0083**	-	<0.005	<0.005	<0.005	**0.017**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH048_0.5_180227	BH048	0.5 - 0.6	27 Feb 2018	No	SA02	<0.005	<0.005	**0.021**	<0.005	**0.19**	-	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH048_0.9_180227	BH048	0.9 - 1	27 Feb 2018	No	SA02	<0.005	<0.005	**0.0100**	<0.005	**0.051**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH049_0.15_180228	BH049	0.15 - 0.25	28 Feb 2018	Yes	SA02	<0.005	**0.0099**	**0.43**	**0.027**	**0.76**	-	<0.005	<0.005	<0.005	**0.031**	<0.005	**0.076**	<0.005	<0.005	<0.005	<0.005	<0.005
BH049_0.4_180228	BH049	0.4 - 0.5	28 Feb 2018	Yes	SA02	<0.005	<0.005	**0.068**	<0.005	**4.2**	-	<0.005	<0.005	<0.005	**0.013**	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005
BH049_0.9_180228	BH049	0.9 - 1	28 Feb 2018	No	SA02	<0.005	<0.005	**0.024**	<0.005	**2.2**	-	<0.005	<0.005	<0.005	**0.0059**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH050_0.15_180228	BH050	0.15 - 0.25	28 Feb 2018	Yes	SA02	**0.0094**	**0.021**	**0.56**	**0.025**	**0.61**	-	<0.005	<0.005	**0.0057**	**0.045**	**0.0067**	**0.028**	<0.005	<0.005	<0.005	<0.005	<0.005
BH050_0.4_180228	BH050	0.4 - 0.5	28 Feb 2018	Yes	SA02	<0.005	<0.005	**0.1**	**0.022**	**2.7**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005
BH050_0.9_180228	BH050	0.9 - 1	28 Feb 2018	No	SA02	<0.005	<0.005	**0.061**	**0.0051**	**1.9**	-	<0.005	<0.005	<0.005	**0.011**	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005
BH051_0.15_180323	BH051	0.15 - 0.25	23 Mar 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH051_0.4_180323	BH051	0.4 - 0.5	23 Mar 2018	No	SA02	<0.005	<0.005	**0.01**	<0.005	**0.082**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH052_0.05_180301	BH052	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	**0.015**	<0.005	**0.085**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH053_0.15_180228	BH053	0.15 - 0.25	28 Feb 2018	Yes	SA02	**0.02**	**0.0084**	**0.077**	<0.005	**0.041**	-	<0.005	<0.005	**0.0066**	**0.031**	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005
BH053_0.5_180228	BH053	0.5 - 0.6	28 Feb 2018	No	SA02	<0.005	<0.005	**0.017**	<0.005	**0.28**	-	<0.005	<0.005	<0.005	**0.0055**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH053_0.9_180228	BH053	0.9 - 1	28 Feb 2018	No	SA02	**0.0088**	**0.013**	**0.073**	<0.005	**0.32**	-	<0.005	<0.005	<0.005	**0.024**	<0.005	**0.0068**	<0.005	<0.005	<0.005	<0.005	<0.005
BH053_1.3_180228	BH053	1.3 - 1.4	28 Feb 2018	No	SA02	**0.18**	**0.19**	**1.4**	**0.15**	**1.8**	-	<0.005	**0.035**	**0.074**	**0.52**	**0.039**	**0.16**	<0.005	<0.005	<0.005	<0.005	<0.005
BH054_0.15_180228	BH054	0.15 - 0.25	28 Feb 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH054_0.4_180228	BH054	0.4 - 0.5	28 Feb 2018	Yes	SA02	**0.011**	**0.0069**	**0.038**	<0.005	**0.098**	-	<0.005	<0.005	<0.005	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH055_0.05_180228	BH055	0.05 - 0.15	28 Feb 2018	Yes	SA02	<0.005	<0.005	**0.0061**	<0.005	**0.061**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH055_0.5_180228	BH055	0.5 - 0.6	28 Feb 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.16**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH055_0.9_180228	BH055	0.9 - 1	28 Feb 2018	No	SA02	<0.005	<0.005	**0.0076**	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH056_0.05_180228	BH056	0.05 - 0.15	28 Feb 2018	Yes	SA02	<0.005	<0.005	**0.0067**	<0.005	**0.029**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH057_0.05_180301	BH057	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	**0.0094**	<0.005	**0.071**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH059_0.05_180301	BH059	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	**0.0064**	<0.005	**0.054**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH060_0.05_180301	BH060	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH060_0.5_180301	BH060	0.5 - 0.6	01 Mar 2018	No	SA02	<0.005	<0.005	**0.014**	<0.005	**0.022**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH061_0.05_180301	BH061	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.039**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH062_0.05_180301	BH062	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.046**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH063_0.05_180301	BH063	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.031**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH064_0.05_180301	BH064	0.05 - 0.15	01 Mar 2018	Yes	SA02	<0.005	<0.005	**0.0090**	<0.005	**0.15**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH064_0.9_180228	BH064	0.9 - 1	28 Feb 2018	No	SA02	<0.005	<0.005	**0.014**	<0.005	**0.058**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH281_0.0_241004	BH281	0 - 0.1	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.018**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH281_0.4_241004	BH281	0.4 - 0.5	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.057**	<0.005	**0.42**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH282_0.0_241004	BH282	0 - 0.1	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.066**	**0.013**	**1.1**	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.02**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH282_0.3_241004	BH282	0.3 - 0.4	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.018**	<0.005	**0.91**	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH283_0.0_241004	BH283	0 - 0.1	04 Oct 2024	No	SA02	<0.005	<0.005	**0.0085**	<0.005	**0.74**	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH283_0.3_241004	BH283	0.3 - 0.4	04 Oct 2024	No	SA02	<0.005	<0.005	**0.02**	<0.005	**0.64**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH284_0.0_241004	BH284	0 - 0.1	04 Oct 2024	No	SA02	<0.005	<0.005	**0.019**	<0.005	**1.9**	**0.047**	**0.047**	<0.005	<0.005	<0.005	<0.005	**0.0098**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH284_0.3_241004	BH284	0.3 - 0.4	04 Oct 2024	No	SA02	<0.005	<0.005	**0.024**	<0.005	**0.98**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH285_0.0_241004	BH285	0 - 0.1	04 Oct 2024	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.034**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH285_0.9_241004	BH285	0.9 - 1	04 Oct 2024	No	SA02	<0.005	<0.005	**0.0070**	<0.005	**0.24**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH286_0.0_241004	BH286	0 - 0.1	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.044**	<0.005	**0.29**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH286_0.9_241004	BH286	0.9 - 1	04 Oct 2024	No	SA02	<0.005	<0.005	**0.032**	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH287_0.0_241004	BH287	0 - 0.1	04 Oct 2024	Yes	SA02	<0.005	<0.005	**0.027**	<0.005	**0.089**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																	
0932_BH287_0.4_241004	BH287	0.4 - 0.5	04 Oct 2024	Yes	SA02	**0.0066**	<0.005	**0.031**	<0.005	**0.063**	<0.005	<0.005	<0.005	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH288_0.0_241007	BH288	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.052**	<0.005	**0.28**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH288_0.6_241007	BH288	0.6 - 0.7	07 Oct 2024	No	SA02	<0.005	<0.005	**0.035**	<0.005	**0.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241007	BH288		03 Oct 2024		SA02	<0.005	<0.005	**0.061**	<0.005	**0.31**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_241007	BH288		07 Oct 2024		SA02	**0.0014**	**0.0019**	**0.05**	**0.0037**	**0.28**	-	**0.0023**	**0.00050**	**0.00058**	**0.0029**	**0.00039**	**0.0069**	**0.00034**	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH289_0.0_241007	BH289	0 - 0.1	07 Oct 2024	Yes	SA02	**0.0058**	**0.0055**	**0.11**	**0.0062**	**0.52**	<0.005	<0.005	<0.005	<0.005	**0.0070**	<0.005	**0.0083**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH289_0.4_241007	BH289	0.4 - 0.5	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.039**	<0.005	**0.36**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_241007	BH289		03 Oct 2024		SA02	<0.005	<0.005	**0.081**	**0.0073**	**0.52**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0051**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC202_241007	BH289		07 Oct 2024		SA02	**0.0041**	**0.0042**	**0.063**	**0.0075**	**0.56**	-	**0.0022**	**0.0014**	**0.0016**	**0.0068**	**0.00059**	**0.01**	**0.00050**	**0.00085**	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH290_0.0_241007	BH290	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.028**	<0.005	**0.28**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH290_0.4_241007	BH290	0.4 - 0.5	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.013**	<0.005	**0.5**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC103_241007	BH290		03 Oct 2024		SA02	<0.005	<0.005	**0.043**	<0.005	**0.32**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC203_241007	BH290		07 Oct 2024		SA02	**0.0033**	**0.0026**	**0.034**	**0.0029**	**0.31**	-	**0.0010**	**0.0015**	**0.0013**	**0.0042**	**0.00031**	**0.0017**	**0.00023**	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH291_0.0_241007	BH291	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.0055**	<0.005	**0.079**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH291_0.5_241007	BH291	0.5 - 0.6	07 Oct 2024	No	SA02	<0.005	<0.005	**0.0061**	<0.005	**0.038**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH292_0.0_241007	BH292	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH292_0.4_241007	BH292	0.4 - 0.5	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.012**	<0.005	**0.017**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH293_0.0_241007	BH293	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.0064**	<0.005	**0.053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH293_0.5_241007	BH293	0.5 - 0.6	07 Oct 2024	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.0098**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH294_0.0_241007	BH294	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0058**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH294_0.3_241007	BH294	0.3 - 0.4	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.0089**	<0.005	**0.056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH295_0.0_241007	BH295	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0066**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH295_0.4_241007	BH295	0.4 - 0.5	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.0065**	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH296_0.0_241007	BH296	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.047**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH296_0.4_241007	BH296	0.4 - 0.5	07 Oct 2024	Yes	SA02	<0.005	<0.005	**0.0066**	<0.005	**0.052**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH297_0.0_241007	BH297	0 - 0.1	07 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH297_1.1_241007	BH297	1.1 - 1.2	07 Oct 2024	No	SA02	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW022_0.05_180227	MW022	0.05 - 0.15	27 Feb 2018	Yes	SA02	<0.005	<0.005	**0.058**	<0.005	**0.32**	-	**0.037**	<0.005	<0.005	**0.017**	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW022_0.5_180227	MW022	0.5 - 0.6	27 Feb 2018	No	SA02	<0.005	<0.005	**0.058**	<0.005	**0.51**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0072**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW022_0.9_180227	MW022	0.9 - 1	27 Feb 2018	No	SA02	<0.005	<0.005	**0.013**	<0.005	**0.25**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW023_0.15_180227	MW023	0.15 - 0.25	27 Feb 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW023_0.5_180227	MW023	0.5 - 0.6	27 Feb 2018	No	SA02	**0.0071**	**0.014**	**0.25**	**0.024**	**1.1**	-	<0.005	<0.005	**0.0072**	**0.052**	<0.005	**0.026**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW023_0.9_180227	MW023	0.9 - 1	27 Feb 2018	No	SA02	<0.005	**0.0075**	**0.13**	**0.014**	**1.1**	-	<0.005	<0.005	<0.005	**0.03**	<0.005	**0.017**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW024_0.05_180227	MW024	0.05 - 0.15	27 Feb 2018	Yes	SA02	<0.005	<0.005	**0.017**	<0.005	**0.12**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW024_0.25_180227	MW024	0.25 - 0.35	27 Feb 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.036**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP139_0.05_180302	TP139	0.05 - 0.15	02 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP139_1.4_180302	TP139	1.4 - 1.5	02 Mar 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.012**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP141_0.05_180302	TP141	0.05 - 0.15	02 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP141_0.4_180302	TP141	0.4 - 0.5	02 Mar 2018	Yes	SA02	<0.005	<0.005	**0.0064**	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP142_0.05_180302	TP142	0.05 - 0.15	02 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP142_0.4_180302	TP142	0.4 - 0.5	02 Mar 2018	Yes	SA02	<0.005	<0.005	**0.013**	<0.005	**0.047**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP189_0.4_180315	TP189	0.4 - 0.4	15 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0066**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP190_0.4_180315	TP190	0.4 - 0.4	15 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0099**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP191_0.4_180315	TP191	0.4 - 0.4	15 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP192_0.4_180315	TP192	0.4 - 0.4	15 Mar 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0094**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP201_0.2_181214	TP201	0.2 - 0.3	14 Dec 2018	Yes	SA02	<0.005	<0.005	**0.061**	<0.005	**0.46**	-	**0.0083**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP201_0.5_181214	TP201	0.5 - 0.6	14 Dec 2018	No	SA02	<0.005	<0.005	**0.019**	<0.005	**0.31**	-	**0.0098**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP202_0.2_181214	TP202	0.2 - 0.3	14 Dec 2018	Yes	SA02	<0.005	<0.005	**0.1**	**0.0074**	**0.93**	-	**0.04**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP202_0.5_181214	TP202	0.5 - 0.6	14 Dec 2018	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.02**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP203_0.2_181214	TP203	0.2 - 0.3	14 Dec 2018	Yes	SA02	<0.005	<0.005	**0.023**	<0.005	**0.43**	-	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP203_0.5_181214	TP203	0.5 - 0.6	14 Dec 2018	No	SA02	<0.005	<0.005	**0.0095**	<0.005	**0.19**	-	**0.0064**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP204_0.2_181214	TP204	0.2 - 0.3	14 Dec 2018	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.14**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP204_0.5_181214	TP204	0.5 - 0.6	14 Dec 2018	No	SA02	<0.005	<0.005	**0.023**	<0.005	**0.29**	-	**0.0077**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP205_0.0_241018	TP205	0 - 0.1	18 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP205_0.9_241018	TP205	0.9 - 1	18 Oct 2024	No	SA02	<0.005	<0.005	**0.0065**	<0.005	**0.0071**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241018	TP205		18 Oct 2024		SA02	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_241019	TP205		18 Oct 2024		SA02	<0.00010	**0.00025**	**0.0045**	**0.00028**	**0.016**	-	<0.00020	<0.00020	<0.00020	**0.00052**	**0.00012**	**0.0013**	<0.00010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_TP208_0.0_241018	TP208	0 - 0.1	18 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	**0.0067**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP208_0.9_241018	TP208	0.9 - 1	18 Oct 2024	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP209_0.0_241018	TP209	0 - 0.1	18 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP209_0.9_241018	TP209	0.9 - 1	18 Oct 2024	No	SA02	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP210_0.0_241018	TP210	0 - 0.1	18 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP210_0.5_241018	TP210	0.5 - 0.6	18 Oct 2024	No	SA02	<0.005	<0.005	**0.0061**	<0.005	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP211_0.0_241018	TP211	0 - 0.1	18 Oct 2024	Yes	SA02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_TP211_0.9_241018	TP211	0.9 - 1	18 Oct 2024	No	SA02	<0.005	<0.005	**0.0070**	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH006_0.05_180226	BH006	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
BH006_0.25_180226	BH006	0.25 - 0.35	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH007_0.05_180226	BH007	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH008_0.05_180226	BH008	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH009_0.05_180226	BH009	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH010_0.05_180226	BH010	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH010_0.25_180226	BH010	0.25 - 0.35	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH011_0.05_180226	BH011	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH011_0.25_180226	BH011	0.25 - 0.35	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH012_0.05_180226	BH012	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH012_0.25_180226	BH012	0.25 - 0.35	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC200_180226	BH013	0.1 - 0.2	26 Feb 2018	No	SA03	<0.0002	<0.0002	**0.0002**	<0.0002	**0.0006**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
BH013_0.1_180226	BH013	0.1 - 0.2	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC100_180226	BH013	0.1 - 0.2	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH013_0.25_180226	BH013	0.25 - 0.35	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW003_0.05_180226	MW003	0.05 - 0.15	26 Feb 2018	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW004_0.05_180226	MW004	0.05 - 0.15	26 Feb 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	**0.01**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW004_0.4_180226	MW004	0.4 - 0.5	26 Feb 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	**0.0095**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW011_0.05_180313	MW011	0.05 - 0.15	13 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW202_0.1_241122	MW202	0.1 - 0.2	22 Nov 2024	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW202_0.5_241122	MW202	0.5 - 0.6	22 Nov 2024	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW203_0.05_241122	MW203	0.05 - 0.15	22 Nov 2024	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW203_0.1_241122	MW203	0.1 - 0.2	22 Nov 2024	No	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC224_180315	TP111	0 - 0.1	15 Mar 2018		SA03	<0.0002	<0.0002	**0.0004**	<0.0002	**0.0022**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC124_180315	TP111	0 - 0.1	15 Mar 2018		SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP111_0.0_180315	TP111	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP111_0.4_180315	TP111	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP112_0.0_180315	TP112	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP112_0.4_180315	TP112	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP113_0.0_180315	TP113	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP113_0.4_180315	TP113	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP114_0.0_180315	TP114	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP114_0.4_180315	TP114	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP115_0.0_180315	TP115	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP115_0.4_180315	TP115	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP116_0.0_180315	TP116	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP116_0.4_180315	TP116	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP117_0.0_180315	TP117	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP117_0.4_180315	TP117	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP118_0.0_180315	TP118	0 - 0.1	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP118_0.4_180315	TP118	0.4 - 0.5	15 Mar 2018	Yes	SA03	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH034_0.05_180309	BH034	0.05 - 0.15	09 Mar 2018	Yes	SA04	**0.039**	**0.036**	**0.44**	**0.048**	**35**	-	**0.21**	**0.026**	**0.026**	**0.053**	**0.0053**	**0.016**	<0.005	<0.005	<0.005	<0.005	<0.005
BH034_0.3_180309	BH034	0.3 - 0.4	09 Mar 2018	Yes	SA04	**4**	**3**	**46**	**3.3**	**140**	-	**0.064**	**0.51**	**0.69**	**6.3**	**0.48**	**1.7**	**0.015**	<0.005	<0.005	<0.005	<0.005
BH034_0.9_180309	BH034	0.9 - 1	09 Mar 2018	No	SA04	**1**	**1.2**	**7.4**	**0.68**	**7.2**	-	<0.005	**0.29**	**0.43**	**2.1**	**0.24**	**0.4**	<0.005	<0.005	<0.005	<0.005	<0.005
BH035_0.05_180309	BH035	0.05 - 0.15	09 Mar 2018	No	SA04	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH035_0.4_180309	BH035	0.4 - 0.5	09 Mar 2018	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.1**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH036_0.05_180309	BH036	0.05 - 0.15	09 Mar 2018	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.01**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH036_0.4_180309	BH036	0.4 - 0.5	09 Mar 2018	No	SA04	<0.005	<0.005	**0.0096**	<0.005	**0.52**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH036_0.9_180228	BH036	0.9 - 1	28 Feb 2018	No	SA04	<0.005	<0.005	**0.033**	<0.005	**0.088**	-	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC118_180309	BH037	0.05 - 0.15	09 Mar 2018	Yes	SA04	<0.005	<0.005	**0.018**	<0.005	**0.087**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH037_0.05_180309	BH037	0.05 - 0.15	09 Mar 2018	Yes	SA04	<0.005	<0.005	**0.021**	<0.005	**0.11**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC218_180309	BH037	0.05 - 0.15	09 Mar 2018	Yes	SA04	**0.0010**	**0.0006**	**0.0057**	**0.0004**	**0.0272**	-	**0.0003**	<0.001	<0.0002	**0.0004**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
BH037_0.4_180309	BH037	0.4 - 0.5	09 Mar 2018	Yes	SA04	<0.005	<0.005	**0.048**	<0.005	**0.73**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH260_0.0_241002	BH260	0 - 0.1	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH260_0.3_241002	BH260	0.3 - 0.4	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH261_0.0_241002	BH261	0 - 0.1	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH261_0.3_241002	BH261	0.3 - 0.4	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH262_0.0_241002	BH262	0 - 0.1	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH262_0.3_241002	BH262	0.3 - 0.4	02 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH263_0.0_241003	BH263	0 - 0.1	03 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.027**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH263_0.3_241003	BH263	0.3 - 0.4	03 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_241003	BH263		03 Oct 2024		SA04	<0.00010	<0.00010	**0.00038**	<0.00010	**0.019**	-	**0.00023**	<0.00020	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.0050
0932_QC102_241003	BH263		03 Oct 2024		SA04	<0.005	<0.005	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241003	BH263		03 Oct 2024		SA04	<0.005	<0.005	<0.005	<0.005	**0.02**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC202_241003	BH263		03 Oct 2024		SA04	**0.00021**	**0.00027**	**0.0029**	**0.00050**	**0.0092**	-	<0.00020	<0.00020	<0.00020	**0.00096**	<0.00010	**0.00033**	<0.00010	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH264_0.0_241003	BH264	0 - 0.1	03 Oct 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.0058**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH264_0.3_241003	BH264	0.3 - 0.4	03 Oct 2024	No	SA04	<0.005	<0.005	**0.0092**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area															
0932_QC203_241003	BH264		03 Oct 2024		SA04	<0.00010	<0.00010	**0.00057**	<0.00010	**0.0054**	-	<0.00020	<0.00020	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_QC103_241003	BH264		03 Oct 2024		SA04	<0.005	<0.005	<0.005	<0.005	**0.0057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH373_0.0_250407	BH373	0 - 0.1	07 Apr 2025	Yes	SA04	**0.068**	**0.055**	**0.69**	**0.053**	**53**	**0.14**	<0.08	**0.033**	**0.032**	**0.11**	**0.013**	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH373_0.3_250407	BH373	0.3 - 0.4	07 Apr 2025	Yes	SA04	**0.15**	**0.14**	**1.5**	**0.17**	**88**	<0.08	<0.08	**0.033**	**0.05**	**0.28**	**0.024**	**0.062**	**0.0067**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH374_0.0_250407	BH374	0 - 0.1	07 Apr 2025	Yes	SA04	**0.091**	**0.1**	**1.4**	**0.066**	**37**	<0.1	<0.1	**0.017**	**0.029**	**0.16**	**0.02**	**0.072**	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005
0932_BH374_0.3_250407	BH374	0.3 - 0.4	07 Apr 2025	Yes	SA04	**0.33**	**0.23**	**6.7**	**0.82**	**200**	**1.3**	**0.24**	**0.049**	**0.091**	**0.78**	**0.066**	**0.14**	**0.0093**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH374_0.9_250407	BH374	0.9 - 1	07 Apr 2025	No	SA04	**1.6**	**1.7**	**9**	**0.22**	**1.9**	**0.013**	<0.005	**0.27**	**0.47**	**1.9**	**0.36**	**0.38**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH374_1.9_250407	BH374	1.9 - 2	07 Apr 2025	No	SA04	**0.032**	**0.039**	**0.28**	<0.005	**0.13**	<0.005	<0.005	**0.0061**	**0.01**	**0.048**	**0.0085**	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH374_2.9_250407	BH374	2.9 - 3	07 Apr 2025	No	SA04	<0.005	<0.005	**0.032**	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH375_0.0_250407	BH375	0 - 0.1	07 Apr 2025	Yes	SA04	**0.22**	**0.16**	**0.93**	**0.39**	<0.005	**0.043**	<0.02	**0.061**	**0.063**	**0.26**	**0.022**	**0.048**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH375_0.3_250407	BH375	0.3 - 0.4	07 Apr 2025	Yes	SA04	**7.4**	**11**	**67**	**4.9**	<0.005	**0.026**	<0.02	**1.5**	**2.5**	**13**	**1.9**	**3.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH375_0.9_250407	BH375	0.9 - 1	07 Apr 2025	No	SA04	**0.51**	**0.68**	**3.9**	**0.23**	**4.2**	**0.018**	<0.005	**0.2**	**0.25**	**0.92**	**0.13**	**0.27**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH375_1.9_250407	BH375	1.9 - 2	07 Apr 2025	No	SA04	**0.039**	**0.04**	**0.25**	**0.013**	<0.005	<0.005	<0.005	**0.012**	**0.014**	**0.074**	**0.0066**	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH375_2.9_250407	BH375	2.9 - 3	07 Apr 2025	No	SA04	**0.097**	**0.095**	**0.39**	**0.012**	**0.29**	<0.005	<0.005	**0.036**	**0.037**	**0.21**	**0.015**	**0.016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC105_250407	BH375		07 Apr 2025		SA04	**3.2**	**3.9**	**32**	**1.4**	**19**	<0.005	<0.005	**0.63**	**1.2**	**6.5**	**0.83**	**2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC205_250407	BH375		07 Apr 2025		SA04	**3.4**	**5.4**	**47**	**3.1**	**44**	-	**0.0038**	**0.68**	**1.3**	**6.9**	**0.95**	**2.5**	<0.1	**0.00058**	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH376_0.0_250407	BH376	0 - 0.1	07 Apr 2025	Yes	SA04	**0.037**	**0.034**	**0.28**	**0.014**	**4.2**	**0.1**	**0.066**	**0.014**	**0.013**	**0.058**	**0.0058**	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH376_0.3_250407	BH376	0.3 - 0.4	07 Apr 2025	Yes	SA04	**0.15**	**0.11**	**0.86**	**0.11**	**29**	**0.031**	<0.02	**0.046**	**0.058**	**0.26**	**0.017**	**0.039**	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH376_0.9_250407	BH376	0.9 - 1	07 Apr 2025	No	SA04	**0.15**	**0.16**	**0.7**	**0.074**	**1.5**	<0.005	<0.005	**0.036**	**0.045**	**0.23**	**0.024**	**0.05**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH376_1.9_250407	BH376	1.9 - 2	07 Apr 2025	No	SA04	<0.005	<0.005	**0.0080**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH376_2.9_250407	BH376	2.9 - 3	07 Apr 2025	No	SA04	**0.0081**	**0.0071**	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.012**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH377_0.0_250407	BH377	0 - 0.1	07 Apr 2025	Yes	SA04	**0.14**	**0.13**	**1.4**	**0.047**	**94**	<0.32	<0.32	**0.075**	**0.083**	**0.28**	**0.032**	**0.086**	**0.0082**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH377_0.3_250407	BH377	0.3 - 0.4	07 Apr 2025	Yes	SA04	**1**	**0.92**	**8.5**	**0.61**	**84**	<0.1	<0.1	**0.23**	**0.41**	**2.1**	**0.15**	**0.42**	**0.0087**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH377_0.9_250407	BH377	0.9 - 1	07 Apr 2025	No	SA04	**0.84**	**0.89**	**5.6**	**0.16**	**2.5**	<0.005	<0.005	**0.18**	**0.34**	**1.5**	**0.18**	**0.38**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH377_1.9_250407	BH377	1.9 - 2	07 Apr 2025	No	SA04	<0.005	<0.005	**0.01**	<0.005	**0.024**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH377_2.9_250407	BH377	2.9 - 3	07 Apr 2025	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.0050**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC203_250407	BH377		07 Apr 2025		SA04	**0.73**	**1**	**10**	**0.94**	**48**	-	**0.018**	<0.2	**0.3**	**1.9**	**0.19**	**0.56**	<0.1	**0.0010**	<0.00050	<0.00050	<0.00050	<0.0050
0932_QC103_250407	BH377		07 Apr 2025		SA04	**1.2**	**1.5**	**14**	**1.6**	<0.005	**0.036**	<0.02	**0.26**	**0.46**	**2.2**	**0.24**	**0.61**	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH378_0.0_250407	BH378	0 - 0.1	07 Apr 2025	Yes	SA04	**0.02**	**0.018**	**0.16**	**0.0074**	**2.2**	**0.023**	**0.015**	**0.0065**	<0.005	**0.015**	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH378_0.3_250407	BH378	0.3 - 0.4	07 Apr 2025	Yes	SA04	**0.15**	**0.12**	**1.1**	**0.38**	**64**	<0.08	<0.08	**0.038**	**0.05**	**0.17**	**0.014**	**0.05**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH378_0.9_250407	BH378	0.9 - 1	07 Apr 2025	No	SA04	**1.3**	**1.4**	**10**	**0.3**	**1.4**	**0.0058**	<0.005	**0.25**	**0.4**	**1.8**	**0.27**	**0.43**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH378_1.9_250407	BH378	1.9 - 2	07 Apr 2025	No	SA04	**0.019**	**0.017**	**0.11**	<0.005	**0.099**	<0.005	<0.005	<0.005	**0.0063**	**0.032**	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH378_2.9_250407	BH378	2.9 - 3	07 Apr 2025	No	SA04	<0.005	<0.005	**0.027**	<0.005	**0.02**	<0.005	<0.005	<0.005	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_250407	BH378		07 Apr 2025		SA04	**0.023**	**0.028**	**0.17**	**0.017**	**4.5**	-	**0.027**	**0.0076**	**0.0066**	**0.019**	**0.0020**	**0.0064**	<0.01	<0.00050	<0.00050	**0.00074**	<0.00050	<0.0050
0932_QC101_250407	BH378		07 Apr 2025		SA04	**0.027**	**0.021**	**0.22**	**0.023**	**6.5**	**0.0094**	**0.0073**	**0.0079**	**0.0069**	**0.023**	<0.005	**0.0066**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW018_0.05_180309	MW018	0.05 - 0.15	09 Mar 2018	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.0058**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW018_0.4_180309	MW018	0.4 - 0.5	09 Mar 2018	No	SA04	<0.005	<0.005	**0.0083**	**0.0052**	**0.23**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW204_0.05_241120	MW204	0.05 - 0.15	20 Nov 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW204_0.4_241120	MW204	0.4 - 0.5	20 Nov 2024	No	SA04	<0.005	<0.005	<0.005	<0.005	**0.096**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241120	MW204		20 Nov 2024		SA04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH266_0.0_241003	BH266	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.022**	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH266_0.3_241003	BH266	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.026**	<0.005	**0.86**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC103_240930	BH266		30 Sep 2024		SA05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH267_0.0_241003	BH267	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.0093**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH267_0.3_241003	BH267	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.057**	**0.0065**	**0.48**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH268_0.0_241003	BH268	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.014**	<0.005	**0.11**	<0.005	**0.0066**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH268_0.3_241003	BH268	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.022**	<0.005	**0.93**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH269_0.0_241003	BH269	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.03**	<0.005	**0.11**	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH269_0.3_241003	BH269	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.033**	<0.005	**0.53**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH270_0.0_241003	BH270	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.012**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH270_0.3_241003	BH270	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.035**	<0.005	**0.31**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH271_0.0_241003	BH271	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.031**	<0.005	**0.18**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH271_0.3_241003	BH271	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	**0.0075**	**0.13**	<0.005	**0.022**	<0.005	<0.005	<0.005	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH272_0.0_241003	BH272	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH272_0.3_241003	BH272	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.039**	**0.0082**	**0.27**	<0.005	<0.005	<0.005	<0.005	**0.0050**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH273_0.0_241003	BH273	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.013**	<0.005	**0.12**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH273_0.3_241003	BH273	0.3 - 0.4	03 Oct 2024	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH274_0.0_241003	BH274	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	**0.018**	<0.005	**0.25**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH274_0.3_241003	BH274	0.3 - 0.4	03 Oct 2024	Yes	SA05	**0.014**	**0.026**	**0.36**	**0.061**	**0.73**	<0.005	<0.005	<0.005	**0.01**	**0.075**	<0.005	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH275_0.0_241003	BH275	0 - 0.1	03 Oct 2024	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH372_0.0_250408	BH372	0 - 0.1	08 Apr 2025	Yes	SA05	**0.056**	**0.045**	**0.26**	**0.016**	**1.4**	**0.015**	**0.018**	**0.049**	**0.033**	**0.076**	<0.005	**0.0075**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH372_0.3_250408	BH372	0.3 - 0.4	08 Apr 2025	Yes	SA05	**0.031**	**0.032**	**0.34**	**0.015**	**17**	**0.066**	**0.034**	**0.024**	**0.023**	**0.096**	**0.0090**	**0.016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH372_0.9_250408	BH372	0.9 - 1	08 Apr 2025	No	SA05	**0.56**	**0.75**	**5.7**	**0.34**	**4**	**0.015**	<0.005	**0.41**	**0.44**	**1.7**	**0.19**	**0.39**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH372_1.9_250408	BH372	1.9 - 2	08 Apr 2025	No	SA05	**0.2**	**0.22**	**0.82**	**0.059**	**0.44**	<0.005	<0.005	**0.11**	**0.11**	**0.31**	**0.023**	**0.065**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH372_2.9_250408	BH372	2.9 - 3	08 Apr 2025	No	SA05	**0.037**	**0.037**	**0.27**	**0.0073**	**0.15**	<0.005	<0.005	**0.016**	**0.019**	**0.11**	**0.0063**	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC106_250408	BH372		08 Apr 2025		SA05	**0.032**	**0.03**	**0.32**	**0.015**	**11**	**0.067**	**0.03**	**0.026**	**0.024**	**0.092**	**0.0078**	**0.014**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
0932_QC206_250408	BH372		08 Apr 2025		SA05	**0.034**	**0.02**	**0.34**	**0.011**	**7.1**	-	**0.046**	**0.027**	**0.028**	**0.068**	**0.0092**	**0.017**	<0.01	**0.0014**	**0.0010**	**0.0013**	<0.00050	<0.0050
0932_BH379_0.0_250408	BH379	0 - 0.1	08 Apr 2025	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.024**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH379_0.3_250408	BH379	0.3 - 0.4	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.0055**	<0.005	**0.15**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH379_0.9_250408	BH379	0.9 - 1	08 Apr 2025	No	SA05	<0.005	<0.005	**0.0070**	<0.005	**0.046**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH379_1.9_250408	BH379	1.9 - 2	08 Apr 2025	No	SA05	<0.005	<0.005	<0.005	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH380_0.0_250408	BH380	0 - 0.1	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.034**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	**0.0059**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH380_0.3_250408	BH380	0.3 - 0.4	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.048**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH380_0.9_250408	BH380	0.9 - 1	08 Apr 2025	No	SA05	**0.027**	**0.055**	**0.55**	**0.0071**	**0.062**	<0.005	<0.005	**0.0076**	**0.016**	**0.12**	**0.013**	**0.031**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH380_1.9_250408	BH380	1.9 - 2	08 Apr 2025	No	SA05	<0.005	<0.005	**0.024**	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_250408	BH380		08 Apr 2025		SA05	<0.005	<0.005	**0.073**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0083**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_250408	BH380		08 Apr 2025		SA05	<0.0010	**0.0016**	**0.044**	**0.0041**	**0.59**	-	<0.0020	<0.0020	<0.0020	**0.0055**	<0.0010	**0.0014**	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH381_0.0_250408	BH381	0 - 0.1	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.0055**	<0.005	**0.052**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH381_0.3_250408	BH381	0.3 - 0.4	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.035**	<0.005	**0.6**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH381_0.9_250408	BH381	0.9 - 1	08 Apr 2025	No	SA05	<0.005	<0.005	**0.081**	<0.005	**0.057**	<0.005	<0.005	<0.005	<0.005	**0.0070**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH381_1.9_250408	BH381	1.9 - 2	08 Apr 2025	No	SA05	<0.005	<0.005	**0.03**	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	**0.0073**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH382_0.0_250408	BH382	0 - 0.1	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.0064**	<0.005	**0.043**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH382_0.3_250408	BH382	0.3 - 0.4	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.013**	<0.005	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH382_0.9_250408	BH382	0.9 - 1	08 Apr 2025	No	SA05	<0.005	<0.005	**0.023**	<0.005	**0.056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH382_1.9_250408	BH382	1.9 - 2	08 Apr 2025	No	SA05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC105_250408	BH382		08 Apr 2025		SA05	<0.005	<0.005	**0.0057**	<0.005	**0.047**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC205_250408	BH382		08 Apr 2025		SA05	**0.00047**	**0.00056**	**0.0065**	**0.00029**	**0.041**	-	**0.0027**	**0.00094**	**0.00051**	**0.0014**	<0.00010	**0.00041**	<0.00010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH383_0.0_250408	BH383	0 - 0.1	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.038**	<0.005	**0.1**	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH383_0.3_250408	BH383	0.3 - 0.4	08 Apr 2025	Yes	SA05	<0.005	<0.005	**0.0092**	<0.005	**0.063**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH383_0.9_250408	BH383	0.9 - 1	08 Apr 2025	No	SA05	<0.005	<0.005	**0.039**	<0.005	**0.024**	<0.005	<0.005	<0.005	<0.005	**0.0060**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW205_0.0_241120	MW205	0 - 0.1	20 Nov 2024	Yes	SA05	<0.005	<0.005	**0.0050**	<0.005	**0.039**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW205_0.5_241120	MW205	0.5 - 0.6	20 Nov 2024	No	SA05	<0.005	<0.005	**0.032**	<0.005	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW212_0.0_241125	MW212	0 - 0.1	25 Nov 2024	Yes	SA05	<0.005	<0.005	<0.005	<0.005	**0.017**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW212_0.5_241125	MW212	0.5 - 0.6	25 Nov 2024	No	SA05	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241126	MW212		26 Nov 2024		SA05	<0.005	<0.005	**0.018**	<0.005	**0.0057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH201_0.0_181203	BH201	0 - 0.1	03 Dec 2018	Yes	SA06	<0.005	<0.005	<0.005	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH201_0.4_181203	BH201	0.4 - 0.5	03 Dec 2018	Yes	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH202_0.0_181203	BH202	0 - 0.1	03 Dec 2018	Yes	SA06	<0.005	<0.005	<0.005	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH202_0.4_181203	BH202	0.4 - 0.5	03 Dec 2018	Yes	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH203_0.2_181203	BH203	0.2 - 0.3	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH203_0.5_181203	BH203	0.5 - 0.6	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH204_0.2_181203	BH204	0.2 - 0.3	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH204_0.5_181203	BH204	0.5 - 0.6	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC203_181203	BH205	0.1 - 0.2	03 Dec 2018	No	SA06	<0.0002	-	**0.0004**	-	**0.0035**	-	-	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-
BH205_0.1_181203	BH205	0.1 - 0.2	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC102_181203	BH205	0.1 - 0.2	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH205_0.5_181203	BH205	0.5 - 0.6	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH206_0.0_181214	BH206	0.0 - 0.1	14 Dec 2018	No	SA06	<0.005	<0.005	**0.014**	<0.005	**0.051**	-	<0.005	<0.005	<0.005	**0.0094**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH206_0.5_181214	BH206	0.5 - 0.6	14 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH211_0.2_181203	BH211	0.2 - 0.3	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH211_0.9_181203	BH211	0.9 - 1	03 Dec 2018	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.0058**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH243_0.0_240930	BH243	0 - 0.1	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH243_0.3_240930	BH243	0.3 - 0.4	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241001	BH243		01 Oct 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_241001	BH243		01 Oct 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH244_0.0_240930	BH244	0 - 0.1	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH244_0.3_240930	BH244	0.3 - 0.4	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC103_241001	BH244		01 Oct 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH245_0.0_240930	BH245	0 - 0.1	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH245_0.4_240930	BH245	0.4 - 0.5	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH246_0.0_240930	BH246	0 - 0.1	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH246_0.7_240930	BH246	0.7 - 0.8	30 Sep 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH247_0.0_241001	BH247	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH247_0.7_241001	BH247	0.7 - 0.8	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH248_0.0_241001	BH248	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH248_0.5_241001	BH248	0.5 - 0.6	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH249_0.0_241001	BH249	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH249_0.5_241001	BH249	0.5 - 0.6	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH250_0.0_241001	BH250	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH250_0.5_241001	BH250	0.5 - 0.6	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH251_0.0_241001	BH251	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH251_0.4_241001	BH251	0.4 - 0.5	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																	
0932_BH252_0.0_241001	BH252	0 - 0.1	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH252_0.2_241001	BH252	0.2 - 0.3	01 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH253_0.0_241002	BH253	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH253_0.3_241002	BH253	0.3 - 0.4	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_241002	BH253		02 Oct 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH254_0.0_241002	BH254	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.035**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH254_0.3_241002	BH254	0.3 - 0.4	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH255_0.0_241002	BH255	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.0052**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH255_0.3_241002	BH255	0.3 - 0.4	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_240930	BH255		30 Sep 2024		SA06	<0.005	<0.005	<0.005	<0.005	**0.0051**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_240930	BH255		30 Sep 2024		SA06	<0.005	<0.005	**0.0080**	<0.005	**0.069**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241002	BH255		02 Oct 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH256_0.0_241002	BH256	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	**0.0067**	<0.005	**0.071**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH256_0.9_241002	BH256	0.9 - 1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.033**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH257_0.0_241002	BH257	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH257_0.3_241002	BH257	0.3 - 0.4	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH259_0.0_241002	BH259	0 - 0.1	02 Oct 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.038**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH259_0.3_241002	BH259	0.3 - 0.4	02 Oct 2024	No	SA06	<0.005	<0.005	**0.026**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH265_0.0_241003	BH265	0 - 0.1	03 Oct 2024	No	SA06	<0.005	**0.0057**	**0.12**	**0.02**	**0.42**	**0.0058**	**0.0085**	<0.005	<0.005	**0.0090**	<0.005	**0.0069**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH265_0.3_241003	BH265	0.3 - 0.4	03 Oct 2024	No	SA06	**0.0051**	**0.0071**	**0.11**	**0.011**	**0.069**	<0.005	<0.005	<0.005	<0.005	**0.014**	<0.005	**0.0066**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_0.0_250407	BH370	0 - 0.1	07 Apr 2025	Yes	SA06	**0.0055**	**0.0068**	**0.064**	<0.005	**0.037**	<0.005	<0.005	<0.005	<0.005	**0.0098**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_0.3_250415	BH370	0.3 - 0.4	15 Apr 2025	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.083**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_0.3_250407	BH370	0.3 - 0.4	07 Apr 2025	Yes	SA06	<0.005	<0.005	**0.017**	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_0.9_250407	BH370	0.9 - 1	07 Apr 2025	No	SA06	<0.005	<0.005	**0.0097**	<0.005	**0.031**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_1.9_250407	BH370	1.9 - 2	07 Apr 2025	No	SA06	<0.005	<0.005	**0.025**	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	**0.0055**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH370_2.9_250407	BH370	2.9 - 3	07 Apr 2025	No	SA06	<0.005	<0.005	**0.0065**	<0.005	**0.0094**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH371_0.0_250408	BH371	0 - 0.1	08 Apr 2025	Yes	SA06	**0.036**	**0.035**	**0.36**	**0.021**	**8.3**	**0.14**	**0.059**	**0.023**	**0.016**	**0.055**	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH371_0.3_250408	BH371	0.3 - 0.4	08 Apr 2025	Yes	SA06	**1.5**	**1.6**	**12**	**0.98**	**12**	<0.005	<0.005	**0.42**	**0.84**	**3.4**	**0.33**	**0.73**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH371_0.9_250408	BH371	0.9 - 1	08 Apr 2025	No	SA06	**0.077**	**0.087**	**0.66**	**0.048**	**1.6**	**0.02**	**0.0062**	**0.029**	**0.039**	**0.21**	**0.017**	**0.036**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH371_1.9_250408	BH371	1.9 - 2	08 Apr 2025	No	SA06	**0.0068**	**0.0062**	**0.07**	<0.005	**0.14**	<0.005	<0.005	<0.005	<0.005	**0.029**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH371_2.9_250408	BH371	2.9 - 3	08 Apr 2025	No	SA06	<0.005	<0.005	**0.028**	<0.005	**0.091**	<0.005	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC107_250408	BH371		08 Apr 2025		SA06	**1.7**	**2.3**	**18**	**1.1**	**15**	<0.005	<0.005	**0.51**	**0.98**	**3.8**	**0.42**	**0.99**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC207_250408	BH371		08 Apr 2025		SA06	**1.8**	**2.5**	**19**	**1.1**	**11**	-	**0.00089**	**0.56**	**0.86**	**3.9**	**0.46**	**1**	<0.01	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH402_0.0_250407	BH402	0 - 0.1	07 Apr 2025	No	SA06	<0.005	<0.005	**0.0072**	<0.005	**0.064**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW206_0.05_241119	MW206	0.05 - 0.15	19 Nov 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.018**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW206_3.0_241119	MW206	3 - 3.1	19 Nov 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	**0.0061**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW211_0.05_241125	MW211	0.05 - 0.15	25 Nov 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW211_1.0_241125	MW211	1 - 1.1	25 Nov 2024	No	SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241125	MW211		25 Nov 2024		SA06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_SS269_220713	SS269	0 - 0.1	13 Jul 2022	No	SA06	<0.0002	<0.0002	**0.0010**	<0.0002	**0.0085**	-	**0.0006**	<0.001	<0.0002	<0.0002	<0.0002	**0.0004**	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0005
BH037_0.9_180228	BH037	0.9 - 1	28 Feb 2018	No	SA07	<0.005	**0.0058**	**0.044**	<0.005	**0.11**	-	<0.005	<0.005	<0.005	**0.0093**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH038_0.05_180309	BH038	0.05 - 0.15	09 Mar 2018	Yes	SA07	<0.005	<0.005	**0.0065**	<0.005	**0.033**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH038_0.8_180309	BH038	0.8 - 0.9	09 Mar 2018	No	SA07	<0.005	<0.005	**0.0097**	<0.005	**0.1**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW019_0.05_180309	MW019	0.05 - 0.15	09 Mar 2018	Yes	SA07	<0.005	<0.005	**0.0055**	<0.005	**0.05**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW207_0.0_241121	MW207	0 - 0.1	21 Nov 2024	Yes	SA07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_MW207_0.5_241121	MW207	0.5 - 0.6	21 Nov 2024	No	SA07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241121	MW207		21 Nov 2024		SA07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS201_181211	SS201	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0050**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS202_181211	SS202	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0062**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS203_181211	SS203	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS204_181211	SS204	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.013**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS205_181211	SS205	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.019**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS206_181211	SS206	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS207_181211	SS207	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	**0.0072**	<0.005	**0.31**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS208_181211	SS208	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	**0.0068**	<0.005	**0.12**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC210_181211	SS209	0 - 0.1	11 Dec 2018	Yes	SA07	**0.0002**	<0.0002	**0.0018**	<0.0002	**0.0462**	-	**0.0007**	<0.001	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
SS209_181211	SS209	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.065**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC109_181211	SS209	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.068**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS210_181211	SS210	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0056**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS211_181211	SS211	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0064**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS212_181211	SS212	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0069**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS213_181211	SS213	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.04**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS214_181211	SS214	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.21**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS215_181211	SS215	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0076**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS216_181211	SS216	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0067**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS217_181211	SS217	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0080**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																
QC208_181211	SS218	0 - 0.1	11 Dec 2018	Yes	SA07	<0.0002	<0.0002	**0.0005**	<0.0002	**0.0047**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
SS218_181211	SS218	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0088**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC107_181211	SS218	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.01**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS219_181211	SS219	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.019**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS220_181211	SS220	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS221_181211	SS221	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.019**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS222_181211	SS222	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.01**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS223_181211	SS223	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0089**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS224_181211	SS224	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.024**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS225_181211	SS225	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.01**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS226_181211	SS226	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.025**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS227_181211	SS227	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS228_181211	SS228	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS229_181211	SS229	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.028**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS230_181211	SS230	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.09**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS231_181211	SS231	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0068**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS232_181211	SS232	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.0079**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS233_181211	SS233	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS234_181211	SS234	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.018**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS235_181211	SS235	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.024**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS236_181211	SS236	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS237_181211	SS237	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.038**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS238_181211	SS238	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.096**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS239_181211	SS239	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.036**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS240_181211	SS240	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC212_181211	SS241	0 - 0.1	11 Dec 2018		SA07	<0.0002	<0.0002	**0.0005**	<0.0002	**0.0093**	-	<0.0002	<0.001	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
QC111_181211	SS241	0 - 0.1	11 Dec 2018		SA07	<0.005	<0.005	<0.005	<0.005	**0.017**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS241_181211	SS241	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.012**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS242_181211	SS242	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.039**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS243_181211	SS243	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	**0.0061**	<0.005	**0.45**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS244_181211	SS244	0 - 0.1	11 Dec 2018	Yes	SA07	<0.005	<0.005	<0.005	<0.005	**0.045**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH019_0.05_180308	BH019	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.0057**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH019_0.5_180308	BH019	0.5 - 0.6	08 Mar 2018	No	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH020_0.05_180308	BH020	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.065**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH020_0.4_180308	BH020	0.4 - 0.5	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.1**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH021_0.05_180308	BH021	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.016**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH021_0.4_180308	BH021	0.4 - 0.5	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.012**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH022_0.05_180308	BH022	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.069**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH022_0.4_180308	BH022	0.4 - 0.5	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.023**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0070**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH023_0.05_180308	BH023	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.21**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0072**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH023_0.4_180308	BH023	0.4 - 0.5	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.031**	-	<0.005	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH024_0.05_180308	BH024	0.05 - 0.15	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BH024_0.4_180308	BH024	0.4 - 0.5	08 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.011**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH232_0.0_240930	BH232	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.0074**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH232_0.4_240930	BH232	0.4 - 0.5	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH234_0.0_240930	BH234	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.09**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH234_0.4_240930	BH234	0.4 - 0.5	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.049**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0065**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH235_0.0_240930	BH235	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.022**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH235_0.4_240930	BH235	0.4 - 0.5	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH236_0.0_240930	BH236	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH236_0.3_240930	BH236	0.3 - 0.4	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH237_0.0_240930	BH237	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.054**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH237_0.4_240930	BH237	0.4 - 0.5	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.029**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH238_0.0_240930	BH238	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH239_0.0_240930	BH239	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	**0.0096**	<0.005	**0.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH239_0.5_240930	BH239	0.5 - 0.6	30 Sep 2024	No	SA08	<0.005	<0.005	**0.013**	**0.0100**	**0.32**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0071**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH240_0.0_240930	BH240	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH240_0.9_240930	BH240	0.9 - 1	30 Sep 2024	No	SA08	<0.005	<0.005	**0.019**	<0.005	**0.015**	<0.005	<0.005	<0.005	<0.005	**0.0061**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH241_0.0_240930	BH241	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH241_0.4_240930	BH241	0.4 - 0.5	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.12**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH242_0.0_240930	BH242	0 - 0.1	30 Sep 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH242_0.3_240930	BH242	0.3 - 0.4	30 Sep 2024	Yes	SA08	<0.005	<0.005	**0.0063**	<0.005	**0.11**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH276_0.0_241004	BH276	0 - 0.1	04 Oct 2024	Yes	SA08	<0.005	<0.005	**0.02**	<0.005	**0.28**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH276_0.3_241004	BH276	0.3 - 0.4	04 Oct 2024	Yes	SA08	<0.005	<0.005	**0.056**	<0.005	**0.42**	<0.005	<0.005	<0.005	<0.005	**0.0071**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC101_241004	BH276		04 Oct 2024		SA08	<0.005	<0.005	**0.011**	<0.005	**0.23**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC201_241004	BH276		04 Oct 2024		SA08	**0.00050**	**0.00074**	**0.0086**	**0.00066**	**0.079**	-	**0.0010**	**0.0011**	**0.0010**	**0.0022**	<0.00010	**0.00025**	<0.00010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050

Table 1 – Soil Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.005	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005
PFAS NEMP 2025 Ecological direct exposure – all land uses					1							10						
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses					0.003							0.003						

Field ID	Location Code	Depth	Date	Accessible Soil	Investigation Area																	
0932_BH277_0.0_241004	BH277	0 - 0.1	04 Oct 2024	Yes	SA08	<0.005	<0.005	**0.037**	**0.0055**	**0.23**	**0.0080**	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH277_0.5_241004	BH277	0.5 - 0.6	04 Oct 2024	No	SA08	<0.005	**0.0064**	**0.03**	**0.083**	**0.24**	**0.0064**	<0.005	<0.005	<0.005	**0.0083**	<0.005	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC102_241004	BH277		04 Oct 2024		SA08	<0.005	<0.005	**0.03**	<0.005	**0.28**	**0.0056**	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC202_241004	BH277		04 Oct 2024		SA08	**0.00087**	**0.0011**	**0.017**	**0.0036**	**0.43**	-	**0.0065**	**0.00076**	**0.00042**	**0.0017**	**0.00023**	**0.0011**	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
0932_BH278_0.0_241004	BH278	0 - 0.1	04 Oct 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.024**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH278_0.3_241004	BH278	0.3 - 0.4	04 Oct 2024	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.0056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC103_241004	BH278		04 Oct 2024		SA08	<0.005	<0.005	<0.005	<0.005	**0.011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC203_241004	BH278		04 Oct 2024		SA08	<0.00010	<0.00010	**0.0025**	**0.00038**	**0.023**	-	<0.00020	**0.00029**	<0.00020	**0.00021**	<0.00010	**0.00060**	**0.00015**	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050
TP131_0.05_180314	TP131	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.084**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP131_0.4_180314	TP131	0.4 - 0.5	14 Mar 2018	Yes	SA08	<0.005	<0.005	**0.053**	<0.005	<0.005	-	<0.005	<0.005	<0.005	**0.0095**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP132_0.05_180314	TP132	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.053**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP132_0.4_180314	TP132	0.4 - 0.5	14 Mar 2018	Yes	SA08	<0.005	<0.005	**0.0054**	<0.005	**0.072**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP133_0.05_180314	TP133	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.076**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP133_0.4_180314	TP133	0.4 - 0.5	14 Mar 2018	Yes	SA08	<0.005	<0.005	**0.073**	**0.0061**	**0.32**	-	<0.005	<0.005	<0.005	**0.013**	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005
TP134_0.05_180314	TP134	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.061**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP134_0.5_180314	TP134	0.5 - 0.6	14 Mar 2018	No	SA08	**0.013**	**0.019**	**0.25**	**0.0073**	**0.23**	-	<0.005	<0.005	**0.0088**	**0.11**	**0.0051**	**0.0077**	<0.005	<0.005	<0.005	<0.005	<0.005
TP134_0.8_180308	TP134	0.8 - 0.9	08 Mar 2018	No	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP135_0.05_180314	TP135	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.015**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP135_0.4_180314	TP135	0.4 - 0.5	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC121_180314	TP136	0.05 - 0.15	14 Mar 2018		SA08	<0.005	<0.005	**0.036**	<0.005	**0.44**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC221_180314	TP136	0.05 - 0.15	14 Mar 2018		SA08	**0.0013**	**0.0014**	**0.0245**	**0.0041**	**0.370**	-	**0.0029**	<0.001	**0.0005**	**0.0028**	**0.0005**	**0.0019**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
TP136_0.05_180314	TP136	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	**0.069**	**0.016**	**0.83**	-	<0.005	<0.005	<0.005	**0.0059**	<0.005	**0.0060**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP136_0.4_180314	TP136	0.4 - 0.5	14 Mar 2018	Yes	SA08	<0.005	<0.005	**0.045**	<0.005	**0.13**	-	<0.005	<0.005	<0.005	**0.0090**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP136_1.0_180308	TP136	1 - 1.1	08 Mar 2018	No	SA08	**0.011**	**0.028**	**0.53**	**0.013**	**0.2**	-	<0.005	<0.005	**0.01**	**0.068**	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP137_0.05_180314	TP137	0.05 - 0.15	14 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.035**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP137_0.5_180314	TP137	0.5 - 0.6	14 Mar 2018	No	SA08	<0.005	<0.005	**0.018**	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP138_0.05_180313	TP138	0.05 - 0.15	13 Mar 2018	Yes	SA08	<0.005	<0.005	<0.005	<0.005	**0.013**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP138_0.5_180314	TP138	0.5 - 0.6	14 Mar 2018	No	SA08	<0.005	<0.005	<0.005	<0.005	**0.034**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH225_0.0_240930	BH225	0 - 0.1	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH225_0.4_240930	BH225	0.4 - 0.5	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	**0.13**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH226_0.4_240930	BH226	0.4 - 0.5	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH227_0.0_240930	BH227	0 - 0.1	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH227_0.5_240930	BH227	0.5 - 0.6	30 Sep 2024	No	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH228_0.0_240930	BH228	0 - 0.1	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH229_0.0_240930	BH229	0 - 0.1	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH229_0.4_240930	BH229	0.4 - 0.5	30 Sep 2024	Yes	SA10	<0.005	<0.005	**0.0075**	<0.005	**0.07**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH230_0.0_240930	BH230	0 - 0.1	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BH230_0.4_240930	BH230	0.4 - 0.5	30 Sep 2024	Yes	SA10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC225_180316	TP106	0 - 0.1	16 Mar 2018		SA10	<0.0002	<0.0002	**0.0008**	<0.0002	**0.0138**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Ecological direct exposure – all land uses

HEPA, March 2025, PFAS NEMP 2025 Interim ecological indirect exposure – all land uses

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
SS129_180321	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.053**	**0.053**	**0.053**
SS130_180321	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0099**	<0.01	<0.05
SS131_180321	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.2775**	**0.2775**	**0.2775**
SS132_180321	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0092**	<0.01	<0.05
SS157_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.978**	**0.978**	**0.978**
QC126_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.137**	**2.137**	**2.155**
QC226_180326	<0.0005	<0.0005	<0.0005	<0.0005	**0.0004**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**1.37**	**1.38**	**1.41**
SS159_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.033**	**2.033**	**2.051**
SS161_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**15**	**15.209**	**15.426**
SS162_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.44**	**1.5506**	**1.6196**
SS163_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.041**	**0.041**	<0.05
SS164_180326	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.02**	**0.02**	<0.05
BH058_0.05_180301	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.089**	**0.089**	**0.089**
0932_BH231_0.0_240930	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.024**	**0.024**	<0.05
0932_BH231_0.4_240930	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH233_0.0_240930	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0669**	**0.0669**	**0.0669**
0932_BH233_0.85_240930	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**4.34**	**4.5052**	**4.6843**
0932_BH279_0.0_241004	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.443**	**0.443**	**0.443**
0932_BH279_0.3_241004	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.146**	**0.146**	**0.1531**
0932_BH280_0.0_241004	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.2462**	**0.2462**	**0.255**
0932_BH280_0.3_241004	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.586**	**0.586**	**0.586**
0932_BH297_1.4_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
0932_BH297_1.9_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0823**	**0.0823**	**0.0823**
0932_BH298_0.0_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.022**	**0.022**	<0.05
0932_BH298_1.1_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.01**	**0.01**	<0.05
0932_BH298_1.4_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH298_1.9_241007	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0052**	<0.01	<0.05
0932_BH311_0.0_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0081**	<0.01	<0.05
0932_BH311_0.8_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0219**	**0.0219**	<0.05
0932_BH312_0.0_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH312_0.7_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0254**	**0.0254**	<0.05
0932_BH313_0.0_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.025**	**0.025**	<0.05
0932_BH313_0.9_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.063**	**0.063**	**0.063**
0932_QC101_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.026**	**0.026**	<0.05
0932_BH314_0.0_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
0932_BH314_0.9_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0159**	**0.0159**	<0.05
0932_QC102_250122	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0086**	<0.01	<0.05
0932_BH338_0.0_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
0932_BH338_0.6_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0506**	**0.0506**	**0.0506**
0932_BH339_0.0_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH339_0.6_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH354_0.0_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0061**	<0.01	<0.05
0932_BH354_0.6_250128	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH373_0.9_250407	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.13**	**1.482**	**1.712**
0932_BH373_1.9_250407	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0222**	**0.0222**	<0.05
0932_BH373_2.9_250407	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.023**	**0.023**	<0.05
QC223_180315	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0141**	**0.0143**	**0.0143**
QC123_180315	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0087**	<0.01	<0.05
MW005_0.05_180315	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
MW005_0.1_180313	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW013_0.05_180315	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC106_180301	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0633**	**0.0633**	**0.0633**
QC206_180301	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0782**	**0.0789**	**0.0804**
MW025_0.05_180301	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0672**	**0.0672**	**0.0672**
MW025_0.6_180301	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.44**	**0.4574**	**0.4674**
MW025_0.9_180228	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.162**	**0.1673**	**0.1723**
MW100_0.0-0.1_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0036**	**0.0036**	**0.0036**
QC200_200508	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC100_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0039**	**0.0044**	**0.0044**
MW100_0.4-0.5_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0032**	**0.0037**	**0.0037**
MW100_2.9-3.0_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
MW101_0.0-0.1_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0031**	**0.0049**	**0.0049**
MW101_2.9-3.0_200508	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
MW102_0.0_181127	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.048**	**0.048**	<0.05
MW102_1.0_181127	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW102_16.4_181203	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
MW105_0.0_181127	MW105	0.0 - 0.1	27 Nov 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
MW105_1.0_181127	MW105	1.0 - 1.1	27 Nov 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW106_0.0_181204	MW106	0.0 - 0.1	04 Dec 2018	<0.005	<0.01	<0.005	<0.005	**0.38**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.206**	**0.23**	**0.61**
MW106_1.0_181204	MW106	1.0 - 1.1	04 Dec 2018	<0.005	<0.01	<0.005	<0.005	**0.0060**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.299**	**2.529**	**2.629**
MW107_0.0_181127	MW107	0.0 - 0.1	27 Nov 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.029**	**0.029**	<0.05
MW107_1.0_181127	MW107	1.0 - 1.1	27 Nov 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW108_0.0_181205	MW108	0.0 - 0.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
MW108_1.0_181205	MW108	1.0 - 1.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW109_0.0_181205	MW109	0.0 - 0.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.035**	**0.035**	<0.05
MW109_1.0_181205	MW109	1.0 - 1.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC205_181205	MW110	0.0 - 0.1	05 Dec 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0194**	**0.0194**	**0.0194**
QC104_181205	MW110	0.0 - 0.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.041**	**0.041**	<0.05
MW110_0.0_181205	MW110	0.0 - 0.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.041**	**0.041**	<0.05
MW110_1.0_181205	MW110	1.0 - 1.1	05 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0067**	<0.01	<0.05
MW111_0.1_181204	MW111	0.1 - 0.2	04 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW111_0.3_181204	MW111	0.3 - 0.4	04 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0066**	<0.01	<0.05
MW111_1.0_181204	MW111	1.0 - 1.1	04 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SS187_180326	SS187	0 - 0.1	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SS188_180326	SS188	0 - 0.1	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1**	**0.1**	**0.1**
0932_SS251_220713	SS251	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0185**	**0.0188**	**0.0188**
0932_SS252_220713	SS252	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0355**	**0.0360**	**0.0380**
0932_SS253_220713	SS253	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0023**	<0.0005	**0.0419**	**0.0422**	**0.0453**
0932_SS254_220713	SS254	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0120**	**0.0120**	**0.0135**
0932_SS255_220713	SS255	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0395**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0640**	**0.0679**	**0.109**
0932_SS256_220713	SS256	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0074**	**0.0074**	**0.0076**
0932_SS257_220713	SS257	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0002	<0.0005	<0.0005	**0.0009**	<0.0005	**0.0447**	**0.0464**	**0.0504**
0932_SS258_220713	SS258	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0315**	**0.0325**	**0.0338**
0932_SS259_220713	SS259	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0415**	**0.0426**	**0.0450**
0932_QC201_220713	SS260	0 - 0.1	13 Jul 2022	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.267**	**0.2729**	**0.2729**
0932_QC101_220713	SS260	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.282**	**0.309**	**0.317**
0932_SS260_220713	SS260	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.208**	**0.235**	**0.240**
0932_SS261_220713	SS261	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0002**	<0.0005	**0.0181**	**0.0183**	**0.0190**
0932_SS262_220713	SS262	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0061**	**0.0061**	**0.0061**
0932_SS263_220713	SS263	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0273**	**0.0273**	**0.0282**
0932_SS264_220713	SS264	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0074**	**0.0074**	**0.0074**
0932_SS265_220713	SS265	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0004**	<0.0005	**0.0033**	**0.0033**	**0.0037**
0932_SS266_220713	SS266	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0014**	**0.0014**	**0.0014**
0932_QC202_220713	SS267	0 - 0.1	13 Jul 2022	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC102_220713	SS267	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0014**	<0.0005	**0.0041**	**0.0043**	**0.0063**
0932_SS267_220713	SS267	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	**0.0004**	<0.0005	**0.0038**	**0.0038**	**0.0050**
0932_SS268_220713	SS268	0 - 0.1	13 Jul 2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0170**	**0.0191**	**0.0201**
TP101_0.0_180316	TP101	0 - 0	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP101_0.5_180316	TP101	0.5 - 0.5	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP101_1.0_180316	TP101	1 - 1	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP102_0.0_180316	TP102	0 - 0	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP102_0.5_180316	TP102	0.5 - 0.5	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP102_1.0_180316	TP102	1 - 1	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0087**	<0.01	<0.05
TP103_0.0_180316	TP103	0 - 0	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP103_0.5_180316	TP103	0.5 - 0.5	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP103_1.0_180316	TP103	1 - 1	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP104_0.0_180316	TP104	0 - 0	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP104_0.5_180316	TP104	0.5 - 0.5	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP104_1.0_180316	TP104	1 - 1	16 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0073**	<0.01	<0.05
TP119_0.0_180315	TP119	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP119_0.4_180315	TP119	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP120_0.0_180315	TP120	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP120_0.5_180315	TP120	0.5 - 0.6	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP121_0.0_180315	TP121	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP121_0.6_180315	TP121	0.6 - 0.7	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP122_0.0_180315	TP122	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0089**	<0.01	<0.05
TP122_0.5_180315	TP122	0.5 - 0.6	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP123_0.0_180314	TP123	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0063**	<0.01	<0.05
TP123_0.4_180314	TP123	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP124_0.0_180314	TP124	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP124_0.4_180314	TP124	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP125_0.0_180314	TP125	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
TP125_0.4_180314	TP125	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP126_0.0_180314	TP126	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0072**	<0.01	<0.05
TP126_0.4_180314	TP126	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP127_0.0_180314	TP127	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP127_0.4_180314	TP127	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP128_0.0_180314	TP128	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP128_0.4_180314	TP128	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP129_0.0_180314	TP129	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP129_0.4_180314	TP129	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC122_180314	TP130	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC222_180314	TP130	0 - 0.1	14 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0172**	**0.0175**	**0.0178**
TP130_0.0_180314	TP130	0 - 0.1	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
TP130_0.4_180314	TP130	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP140_0.05_180305	TP140	0.05 - 0.15	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
TP140_0.4_180305	TP140	0.4 - 0.5	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP143_0.05_180306	TP143	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0055**	<0.01	<0.05
TP143_1.1_180306	TP143	1.1 - 1.2	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0061**	<0.01	<0.05
TP144_0.05_180306	TP144	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP144_0.9_180306	TP144	0.9 - 1	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.033**	**0.033**	<0.05
TP145_0.05_180306	TP145	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP145_1.1_180306	TP145	1.1 - 1.2	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.017**	<0.05
TP146_0.05_180306	TP146	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP146_1.0_180306	TP146	1 - 1.1	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP147_0.05_180308	TP147	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.022**	**0.022**	<0.05
TP148_0.05_180305	TP148	0.05 - 0.15	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.12**	**0.12**	**0.12**
TP148_0.4_180305	TP148	0.4 - 0.5	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.262**	**0.262**	**0.262**
TP148_1.2_180228	TP148	1.2 - 1.3	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0057**	<0.01	<0.05
TP149_0.05_180308	TP149	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
TP150_0.05_180308	TP150	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
TP150_0.4_180308	TP150	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.01**	**0.01**	<0.05
TP151_0.05_180302	TP151	0.05 - 0.15	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
TP151_0.4_180302	TP151	0.4 - 0.5	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0078**	<0.01	<0.05
TP152_0.05_180302	TP152	0.05 - 0.15	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.012**	**0.012**	<0.05
TP152_1.4_180302	TP152	1.4 - 1.5	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.044**	**0.044**	<0.05
TP153_0.05_180308	TP153	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.026**	**0.026**	<0.05
QC215_180308	TP154	0.05 - 0.15	08 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0240**	**0.0245**	**0.0245**
QC115_180308	TP154	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.034**	**0.034**	<0.05
TP154_0.05_180308	TP154	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.037**	**0.037**	<0.05
TP154_0.4_180308	TP154	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.085**	**0.085**	**0.085**
TP155_0.2_180309	TP155	0.2 - 0.2	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.019**	**0.019**	<0.05
TP155_0.5_180309	TP155	0.5 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
TP156_0.2_180309	TP156	0.2 - 0.2	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
TP156_0.5_180309	TP156	0.5 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0061**	<0.01	<0.05
TP157_0.2_180309	TP157	0.2 - 0.2	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP157_0.5_180309	TP157	0.5 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.017**	<0.05
TP158_0.2_180309	TP158	0.2 - 0.2	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0056**	<0.01	<0.05
TP158_0.5_180309	TP158	0.5 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC209_180305	TP167	0.05 - 0.15	05 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0356**	**0.0358**	**0.0358**
QC109_180305	TP167	0.05 - 0.15	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.046**	**0.046**	<0.05
TP167_0.05_180302	TP167	0.05 - 0.15	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.031**	**0.031**	<0.05
TP167_1.0_180302	TP167	1 - 1.1	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0196**	**0.0196**	<0.05
TP168_0.05_180309	TP168	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0075**	<0.01	<0.05
TP169_0.05_180309	TP169	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.007**	<0.01	<0.05
TP170_0.05_180309	TP170	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.008**	<0.01	<0.05
TP171_0.05_180309	TP171	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.013**	**0.013**	<0.05
TP171_0.2_180309	TP171	0.2 - 0.3	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
TP172_0.05_180302	TP172	0.05 - 0.15	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
TP172_0.4_180302	TP172	0.4 - 0.5	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.045**	**0.045**	<0.05
TP173_0.05_180308	TP173	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.059**	**0.059**	**0.059**
TP174_0.05_180308	TP174	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.098**	**0.098**	**0.098**
TP175_0.05_180308	TP175	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
TP176_0.05_180308	TP176	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.146**	**0.146**	**0.146**
TP176_0.5_180308	TP176	0.5 - 0.6	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
TP177_0.05_180308	TP177	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.623**	**0.6449**	**0.665**
TP177_0.5_180308	TP177	0.5 - 0.6	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.029**	**0.042**	<0.05
TP178_0.05_180308	TP178	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.7**	**1.808**	**1.903**

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
TP178_0.4_180308	TP178	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.047**	**0.065**	**0.0718**
TP179_0.05_180308	TP179	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1665**	**0.1665**	**0.1665**
TP179_0.4_180308	TP179	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.009**	<0.01	<0.05
TP180_0.05_180308	TP180	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.79**	**0.8413**	**0.8813**
TP180_0.4_180308	TP180	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP181_0.05_180305	TP181	0.05 - 0.15	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.035**	**0.035**	<0.05
TP181_0.4_180305	TP181	0.4 - 0.5	05 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0781**	**0.0781**	**0.0781**
TP182_0.05_180308	TP182	0.05 - 0.15	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.204**	**0.21**	**0.21**
TP182_0.4_180308	TP182	0.4 - 0.5	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP183_0.05_180306	TP183	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP184_0.05_180306	TP184	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0091**	<0.01	<0.05
QC212_180306	TP185	0.05 - 0.15	06 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0027**	**0.0027**	**0.0027**
QC112_180306	TP185	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP185_0.05_180306	TP185	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0056**	<0.01	<0.05
TP186_0.05_180306	TP186	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP187_0.05_180302	TP187	0.05 - 0.15	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.012**	**0.012**	<0.05
TP187_0.9_180302	TP187	0.9 - 1	02 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
TP188_0.05_180306	TP188	0.05 - 0.15	06 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP193_0.4_180319	TP193	0.4 - 0.4	19 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0091**	<0.01	<0.05
TP194_0.4_180319	TP194	0.4 - 0.4	19 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
0932_TP206_0.0_241018	TP206	0 - 0.1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_TP206_0.9_241018	TP206	0.9 - 1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0137**	**0.0137**	<0.05
0932_TP207_0.0_241018	TP207	0 - 0.1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0091**	<0.01	<0.05
0932_TP207_0.9_241018	TP207	0.9 - 1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.092**	**0.092**	**0.092**
0932_TP212_0.0_241018	TP212	0 - 0.1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_TP212_0.9_241018	TP212	0.9 - 1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0219**	**0.0219**	<0.05
0932_QC202_241021	TP212		18 Oct 2024	<0.00010	<0.00010	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.016**	-	**0.017**
0932_TP213_0.0_241018	TP213	0 - 0.1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_TP213_0.5_241018	TP213	0.5 - 0.6	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_TP214_0.0_241018	TP214	0 - 0.1	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_TP214_0.2_241018	TP214	0.2 - 0.3	18 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH299_0.0_250124	BH299	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.006**	<0.01	<0.05
0932_BH299_1.8_250124	BH299	1.8 - 1.9	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH300_0.0_250124	BH300	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.074**	**0.074**	**0.074**
0932_BH300_0.5_250124	BH300	0.5 - 0.6	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.289**	**0.296**	**0.296**
0932_BH301_0.0_250124	BH301	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.19**	**0.19**	**0.19**
0932_BH301_1.0_250124	BH301	1 - 1.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.08**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.485**	**0.513**	**0.593**
0932_BH302_0.0_250124	BH302	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.2**	**0.2**	**0.2**
0932_BH302_0.6_250124	BH302	0.6 - 0.7	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.54**	**0.54**	**0.54**
0932_BH303_0.0_250124	BH303	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.44**	**0.44**	**0.44**
0932_BH303_0.5_250124	BH303	0.5 - 0.6	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.044**	**0.044**	**0.0589**
0932_BH304_0.0_250124	BH304	0 - 0.1	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.054**	**0.054**	**0.054**
0932_BH304_0.7_250124	BH304	0.7 - 0.8	24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.029**	**0.029**	<0.05
0932_QC101_250124	BH304		24 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.051**	**0.051**	**0.0572**
0932_BH305_0.0_250122	BH305	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.072**	**0.072**	**0.099**
0932_BH305_0.3_250122	BH305	0.3 - 0.4	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.039**	**0.039**	<0.05
0932_BH306_0.0_250122	BH306	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.0090**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH306_0.3_250122	BH306	0.3 - 0.4	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.051**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	**0.0734**
0932_BH307_0.0_250122	BH307	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.338**	**0.338**	**0.338**
0932_BH307_0.3_250122	BH307	0.3 - 0.4	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.2**	**1.2**	**1.2**
0932_BH308_0.0_250122	BH308	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1069**	**0.1069**	**0.1069**
0932_BH308_0.4_250122	BH308	0.4 - 0.5	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.059**	**0.059**	**0.059**
0932_BH309_0.0_250122	BH309	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
0932_BH309_0.5_250122	BH309	0.5 - 0.6	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.12**	**0.12**	**0.12**
0932_BH310_0.0_250122	BH310	0 - 0.1	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.077**	**0.077**	**0.077**
0932_BH310_0.3_250122	BH310	0.3 - 0.4	22 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.312**	**0.312**	**0.312**
0932_BH310_0.9_250122	BH310	0.9 - 1	22 Jan 2025	-	<0.01	-	-	-	-	-	-	-	-	-	**0.47**	-	-
0932_BH310_1.4_250122	BH310	1.4 - 1.5	22 Jan 2025	-	<0.01	-	-	-	-	-	-	-	-	-	**0.076**	-	-
0932_BH310_2.6_250122	BH310	2.6 - 2.7	22 Jan 2025	-	<0.01	-	-	-	-	-	-	-	-	-	<0.005	-	-
0932_BH310_3.5_250122	BH310	3.5 - 3.6	22 Jan 2025	-	<0.01	-	-	-	-	-	-	-	-	-	<0.005	-	-
0932_BH310_3.9_250122	BH310	3.9 - 4	22 Jan 2025	-	<0.01	-	-	-	-	-	-	-	-	-	<0.005	-	-
0932_BH315_0.0_250128	BH315	0 - 0.1	28 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH315_1.0_250128	BH315	1 - 1.1	28 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
0932_QC101_250123	BH315		23 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.049**	**0.049**	<0.05
0932_BH316_0.0_250129	BH316	0 - 0.1	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0286**	**0.0286**	<0.05
0932_BH316_0.3_250129	BH316	0.3 - 0.4	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_BH316_1.9_250129	BH316	1.9 - 2	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.027**	**0.027**	<0.05
0932_BH316_3.5_250129	BH316	3.5 - 3.6	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH317_0.0_250130	BH317	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
0932_BH317_0.9_250130	BH317	0.9 - 1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.032**	**0.032**	<0.05
0932_BH317_2.5_250130	BH317	2.5 - 2.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.06**	**0.06**	**0.06**
0932_BH317_3.0_250130	BH317	3 - 3.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.054**	**0.054**	**0.054**
0932_BH318_0.0_250130	BH318	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0732**	**0.0732**	**0.0732**
0932_BH318_0.5_250130	BH318	0.5 - 0.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.0064**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.641**	**0.6985**	**0.7377**
0932_QC102_250130	BH318		30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.408**	**0.4329**	**0.4497**
0932_BH319_0.0_250130	BH319	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.013**	**0.013**	<0.05
0932_BH319_0.4_250130	BH319	0.4 - 0.5	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.101**	**0.1087**	**0.1087**
0932_BH319_1.5_250130	BH319	1.5 - 1.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0079**	<0.01	<0.05
0932_QC101_250130	BH319		30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0074**	<0.01	<0.05
0932_BH320_0.0_250130	BH320	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.083**	**0.083**	**0.083**
0932_BH320_1.1_250130	BH320	1.1 - 1.2	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.364**	**0.3692**	**0.3692**
0932_BH320_2.0_250130	BH320	2 - 2.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0453**	**0.0453**	<0.05
0932_BH320_2.6_250130	BH320	2.6 - 2.7	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.054**	**0.054**	**0.054**
0932_QC111_250130	BH320		30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.063**	**0.0682**	**0.0682**
0932_BH321_0.0_250130	BH321	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
0932_BH321_0.5_250130	BH321	0.5 - 0.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.28**	**0.28**	**0.28**
0932_BH321_2.3_250130	BH321	2.3 - 2.4	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.095**	**0.095**	**0.095**
0932_BH321_2.7_250130	BH321	2.7 - 2.8	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.128**	**0.128**	**0.128**
0932_BH322_0.0_250131	BH322	0 - 0.1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.241**	**0.241**	**0.241**
0932_BH322_0.9_250131	BH322	0.9 - 1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.9**	**1.9787**	**2.0077**
0932_BH322_1.2_250131	BH322	1.2 - 1.3	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.217**	**0.229**	**0.229**
0932_BH322_2.4_250131	BH322	2.4 - 2.5	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.414**	**0.4224**	**0.4224**
0932_QC101_250131	BH322		31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.208**	**0.208**	**0.208**
0932_BH323_0.0_250130	BH323	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.604**	**0.604**	**0.604**
0932_BH323_0.9_250130	BH323	0.9 - 1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.0060**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.5**	**2.531**	**2.5961**
0932_BH323_2.0_250130	BH323	2 - 2.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0395**	**0.0395**	<0.05
0932_BH323_3.0_250130	BH323	3 - 3.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.084**	**0.084**	**0.084**
0932_QC113_250130	BH323		30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.143**	**0.143**	**0.143**
0932_BH324_0.0_250130	BH324	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.024**	**0.024**	<0.05
0932_BH324_0.5_250130	BH324	0.5 - 0.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.0055**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.11**	**0.11**	**0.1155**
0932_BH325_0.0_250131	BH325	0 - 0.1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0091**	<0.01	<0.05
0932_BH325_1.0_250131	BH325	1 - 1.1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.632**	**0.6398**	**0.6451**
0932_BH326_0.0_250131	BH326	0 - 0.1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.03**	**0.03**	<0.05
0932_BH326_1.1_250131	BH326	1.1 - 1.2	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.525**	**0.5376**	**0.5376**
0932_BH327_0.0_250131	BH327	0 - 0.1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0869**	**0.0869**	**0.0869**
0932_BH327_0.9_250131	BH327	0.9 - 1	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.843**	**0.874**	**0.8796**
0932_BH327_2.5_250131	BH327	2.5 - 2.6	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.113**	**0.1189**	**0.1189**
0932_BH327_2.7_250131	BH327	2.7 - 2.8	31 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.086**	**0.0985**	**0.0985**
0932_BH328_0.0_250130	BH328	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.096**	**0.096**	**0.096**
0932_BH328_0.8_250130	BH328	0.8 - 0.9	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.221**	**1.221**	**1.233**
0932_BH328_2.4_250130	BH328	2.4 - 2.5	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.058**	**0.058**	**0.058**
0932_BH328_2.7_250130	BH328	2.7 - 2.8	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.186**	**0.1947**	**0.1947**
0932_BH329_0.0_250130	BH329	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
0932_BH329_0.3_250130	BH329	0.3 - 0.4	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.0261**	<0.05
0932_BH329_3.0_250130	BH329	3 - 3.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0178**	**0.0178**	<0.05
0932_BH329_3.9_250130	BH329	3.9 - 4	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.008**	<0.01	<0.05
0932_QC108_250130	BH329		30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0095**	<0.01	<0.05
0932_BH330_0.0_250130	BH330	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.058**	**0.058**	**0.058**
0932_BH330_0.7_250130	BH330	0.7 - 0.8	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	**0.0094**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.526**	**1.541**	**1.5504**
0932_BH331_0.0_250130	BH331	0 - 0.1	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.023**	**0.023**	<0.05
0932_BH331_1.5_250130	BH331	1.5 - 1.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH331_2.5_250130	BH331	2.5 - 2.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.023**	**0.023**	<0.05
0932_BH331_3.5_250130	BH331	3.5 - 3.6	30 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.081**	**0.081**	**0.081**
0932_BH332_0.0_250123	BH332	0 - 0.1	23 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.032**	**0.032**	<0.05
0932_BH332_0.6_250123	BH332	0.6 - 0.7	23 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.345**	**0.3511**	**0.3571**
0932_BH333_0.0_250129	BH333	0 - 0.1	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.028**	**0.028**	<0.05
0932_BH333_0.9_250129	BH333	0.9 - 1	29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0304**	**0.0304**	<0.05
0932_QC101_250129	BH333		29 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.026**	**0.026**	<0.05
0932_BH334_0.0_250123	BH334	0 - 0.1	23 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.03**	**0.03**	<0.05
0932_BH334_1.2_250123	BH334	1.2 - 1.3	23 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.012**	**0.012**	<0.05
0932_BH335_0.0_250128	BH335	0 - 0.1	28 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.012**	**0.012**	<0.05
0932_BH335_0.8_250128	BH335	0.8 - 0.9	28 Jan 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0063**	<0.01	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_BH335_2.0_250128	BH335	2 - 2.1	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH335_2.3_250130	BH335	2.3 - 2.4	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH336_0.0_250129	BH336	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.031**	**0.031**	*<0.05*
0932_BH336_1.0_250129	BH336	1 - 1.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.121**	**0.121**	**0.121**
0932_QC103_250129	BH336		29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.023**	**0.023**	*<0.05*
0932_BH337_0.0_250123	BH337	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.013**	**0.013**	*<0.05*
0932_BH337_0.3_250123	BH337	0.3 - 0.4	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0262**	**0.0262**	*<0.05*
0932_BH340_0.0_250128	BH340	0 - 0.1	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0074**	*<0.01*	*<0.05*
0932_BH340_0.8_250128	BH340	0.8 - 0.9	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0117**	**0.0117**	*<0.05*
0932_BH341_0.0_250123	BH341	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0064**	*<0.01*	*<0.05*
0932_BH341_1.0_250123	BH341	1 - 1.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0054**	*<0.01*	*<0.05*
0932_BH342_0.0_250123	BH342	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH342_1.2_250123	BH342	1.2 - 1.3	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH342_1.9_250122	BH342	1.9 - 2	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH343_0.0_250123	BH343	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.018**	**0.018**	*<0.05*
0932_BH343_0.3_250123	BH343	0.3 - 0.4	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
0932_BH344_0.0_250129	BH344	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1**	**0.1**	**0.1**
0932_BH344_0.5_250129	BH344	0.5 - 0.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.318**	**0.318**	**0.318**
0932_BH344_2.0_250129	BH344	2 - 2.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.023**	**0.023**	*<0.05*
0932_BH344_3.0_250129	BH344	3 - 3.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0185**	**0.0185**	*<0.05*
0932_BH345_0.0_250129	BH345	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.24**	**0.24**	**0.24**
0932_BH345_0.5_250129	BH345	0.5 - 0.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.081**	**1.0946**	**1.1176**
0932_BH345_1.5_250129	BH345	1.5 - 1.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.623**	**0.623**	**0.623**
0932_BH345_2.5_250129	BH345	2.5 - 2.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.368**	**0.368**	**0.368**
0932_BH346_0.0_250129	BH346	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.036**	**0.036**	*<0.05*
0932_BH346_0.6_250129	BH346	0.6 - 0.7	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.2**	**1.2**	**1.2**
0932_BH346_2.0_250129	BH346	2 - 2.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.121**	**0.1425**	**0.1425**
0932_BH346_3.0_250129	BH346	3 - 3.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0222**	**0.0222**	*<0.05*
0932_BH347_0.0_250129	BH347	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.075**	**0.075**	**0.075**
0932_BH347_0.7_250129	BH347	0.7 - 0.8	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.385**	**0.3993**	**0.3993**
0932_BH347_1.4_250129	BH347	1.4 - 1.5	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.15**	**0.15**	**0.15**
0932_BH347_2.4_250129	BH347	2.4 - 2.5	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0192**	**0.0192**	*<0.05*
0932_BH348_0.0_250131	BH348	0 - 0.1	31 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.022**	**0.022**	*<0.05*
0932_BH348_1.1_250131	BH348	1.1 - 1.2	31 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.56**	**0.5826**	**0.5898**
0932_BH349_0.0_250129	BH349	0 - 0.1	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
0932_BH349_1.5_250129	BH349	1.5 - 1.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.223**	**0.2293**	**0.2293**
0932_BH349_3.5_250129	BH349	3.5 - 3.6	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.638**	**0.6434**	**0.6503**
0932_BH349_3.7_250129	BH349	3.7 - 3.8	29 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.096**	**0.1015**	**0.1015**
0932_BH350_0.0_250123	BH350	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.067**	**0.067**	**0.067**
0932_BH350_1.5_250122	BH350	1.5 - 1.6	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.035**	**0.035**	*<0.05*
0932_BH350_2.5_250122	BH350	2.5 - 2.6	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.068**	**0.068**	**0.068**
0932_BH351_0.0_250123	BH351	0 - 0.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.041**	**0.041**	*<0.05*
0932_BH351_1.0_250123	BH351	1 - 1.1	23 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0437**	**0.0437**	*<0.05*
0932_BH352_0.0_250128	BH352	0 - 0.1	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.008**	*<0.01*	*<0.05*
0932_BH352_0.8_250128	BH352	0.8 - 0.9	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0076**	*<0.01*	*<0.05*
0932_QC102_250128	BH352		28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
0932_BH353_0.0_250128	BH353	0 - 0.1	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0065**	*<0.01*	*<0.05*
0932_BH353_0.6_250128	BH353	0.6 - 0.7	28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_QC101_250128	BH353		28 Jan 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0063**	*<0.01*	*<0.05*
SS165_180326	SS165	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.037**	**0.037**	*<0.05*
SS166_180327	SS166	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.037**	**0.037**	*<0.05*
SS167_180326	SS167	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0077**	*<0.01*	*<0.05*
SS168_180326	SS168	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.057**	**0.057**	**0.057**
SS169_180326	SS169	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.022**	**0.022**	*<0.05*
SS170_180326	SS170	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.13**	**0.13**	**0.13**
SS171_180326	SS171	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.018**	**0.018**	*<0.05*
SS172_180326	SS172	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.02**	**0.02**	*<0.05*
SS173_180327	SS173	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.086**	**0.086**	**0.086**
SS174_180326	SS174	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.021**	**0.021**	*<0.05*
SS175_180327	SS175	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.518**	**0.5308**	**0.5368**
SS176_180326	SS176	0 - 0.1	26 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0088**	*<0.01*	*<0.05*
SS177_180327	SS177	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0056**	*<0.01*	*<0.05*
SS179_180327	SS179	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.016**	**0.016**	*<0.05*
SS180_180327	SS180	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.039**	**0.039**	*<0.05*
SS181_180327	SS181	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0054**	*<0.01*	*<0.05*
SS182_180327	SS182	0 - 0.1	27 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.077**	**0.077**	**0.077**

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
QC128_180326	SS184	0 - 0.1	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0064**	<0.01	<0.05
SS184_180326	SS184	0 - 0.1	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0086**	<0.01	<0.05
QC228_180327	SS184	0 - 0.1	27 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0036**	**0.0036**	**0.0036**
BH041_0.15_180323	BH041	0.15 - 0.25	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0057**	<0.01	<0.05
BH041_0.3_180323	BH041	0.3 - 0.4	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH042_0.15_180323	BH042	0.15 - 0.25	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.047**	**0.047**	<0.05
BH042_0.3_180323	BH042	0.3 - 0.4	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.062**	**0.062**	**0.062**
BH043_0.2_180227	BH043	0.2 - 0.3	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	**0.0078**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.057**	**0.057**	**0.0648**
BH043_0.4_180227	BH043	0.4 - 0.5	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	**0.012**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.146**	**0.146**	**0.158**
BH043_0.9_180227	BH043	0.9 - 1	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0094**	<0.01	<0.05
BH044_0.15_180227	BH044	0.15 - 0.25	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.5**	**0.5543**	**0.5632**
BH044_0.5_180227	BH044	0.5 - 0.6	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.193**	**1.226**	**1.226**
BH044_1.1_180227	BH044	1.1 - 1.2	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.318**	**0.318**	**0.318**
QC103_180228	BH045	0.2 - 0.3	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1031**	**0.1031**	**0.1031**
QC203_180228	BH045	0.2 - 0.3	28 Feb 2018	<0.0005	<0.0005	<0.0005	<0.0005	**0.0016**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.110**	**0.111**	**0.115**
BH045_0.2_180228	BH045	0.2 - 0.3	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.162**	**0.162**	**0.162**
BH045_0.4_180228	BH045	0.4 - 0.5	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.11**	**0.11**	**0.11**
BH046_0.15_180228	BH046	0.15 - 0.25	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	**0.065**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.57**	**0.57**	**0.647**
BH046_0.3_180228	BH046	0.3 - 0.4	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.376**	**0.376**	**0.376**
BH046_0.6_180228	BH046	0.6 - 0.7	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.134**	**0.1413**	**0.1413**
BH047_0.15_180323	BH047	0.15 - 0.25	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	**0.0084**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.58**	**1.634**	**1.6814**
BH047_0.4_180323	BH047	0.4 - 0.5	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	**0.0057**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.18**	**3.203**	**3.2997**
BH048_0.15_180227	BH048	0.15 - 0.25	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0403**	**0.0633**	**0.0688**
BH048_0.5_180227	BH048	0.5 - 0.6	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.211**	**0.223**	**0.223**
BH048_0.9_180227	BH048	0.9 - 1	27 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.061**	**0.061**	**0.061**
BH049_0.15_180228	BH049	0.15 - 0.25	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.19**	**1.297**	**1.3339**
BH049_0.4_180228	BH049	0.4 - 0.5	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**4.268**	**4.292**	**4.292**
BH049_0.9_180228	BH049	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.224**	**2.2299**	**2.2299**
BH050_0.15_180228	BH050	0.15 - 0.25	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.17**	**1.2648**	**1.3108**
BH050_0.4_180228	BH050	0.4 - 0.5	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	**0.0088**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.8**	**2.812**	**2.8428**
BH050_0.9_180228	BH050	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.961**	**1.9774**	**1.9825**
BH051_0.15_180323	BH051	0.15 - 0.25	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH051_0.4_180323	BH051	0.4 - 0.5	23 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.092**	**0.092**	**0.092**
BH052_0.05_180301	BH052	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1**	**0.1**	**0.1**
BH053_0.15_180228	BH053	0.15 - 0.25	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.118**	**0.183**	**0.1914**
BH053_0.5_180228	BH053	0.5 - 0.6	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.297**	**0.3025**	**0.3025**
BH053_0.9_180228	BH053	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.393**	**0.4326**	**0.4456**
BH053_1.3_180228	BH053	1.3 - 1.4	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.2**	**4.208**	**4.548**
BH054_0.15_180228	BH054	0.15 - 0.25	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH054_0.4_180228	BH054	0.4 - 0.5	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.136**	**0.168**	**0.1749**
BH055_0.05_180228	BH055	0.05 - 0.15	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0671**	**0.0671**	**0.0671**
BH055_0.5_180228	BH055	0.5 - 0.6	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.16**	**0.16**	**0.16**
BH055_0.9_180228	BH055	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0246**	**0.0246**	<0.05
BH056_0.05_180228	BH056	0.05 - 0.15	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0357**	**0.0357**	<0.05
BH057_0.05_180301	BH057	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0804**	**0.0804**	**0.0804**
BH059_0.05_180301	BH059	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0604**	**0.0604**	**0.0604**
BH060_0.05_180301	BH060	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.017**	<0.05
BH060_0.5_180301	BH060	0.5 - 0.6	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.036**	**0.036**	<0.05
BH061_0.05_180301	BH061	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.039**	**0.039**	<0.05
BH062_0.05_180301	BH062	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.046**	**0.046**	<0.05
BH063_0.05_180301	BH063	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.031**	**0.031**	<0.05
BH064_0.05_180301	BH064	0.05 - 0.15	01 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.159**	**0.159**	**0.159**
BH064_0.9_180228	BH064	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.072**	**0.072**	**0.072**
0932_BH281_0.0_241004	BH281	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.128**	**0.128**	**0.128**
0932_BH281_0.4_241004	BH281	0.4 - 0.5	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.477**	**0.477**	**0.477**
0932_BH282_0.0_241004	BH282	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	**0.0056**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.166**	**1.186**	**1.21**
0932_BH282_0.3_241004	BH282	0.3 - 0.4	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.928**	**0.928**	**0.9333**
0932_BH283_0.0_241004	BH283	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	**0.0082**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.7485**	**0.7485**	**0.7677**
0932_BH283_0.3_241004	BH283	0.3 - 0.4	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.66**	**0.66**	**0.66**
0932_BH284_0.0_241004	BH284	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	**0.14**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.919**	**1.9288**	**2.1628**
0932_BH284_0.3_241004	BH284	0.3 - 0.4	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.004**	**1.004**	**1.004**
0932_BH285_0.0_241004	BH285	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.034**	**0.034**	<0.05
0932_BH285_0.9_241004	BH285	0.9 - 1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.247**	**0.247**	**0.247**
0932_BH286_0.0_241004	BH286	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.334**	**0.334**	**0.334**
0932_BH286_0.9_241004	BH286	0.9 - 1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.162**	**0.162**	**0.162**
0932_BH287_0.0_241004	BH287	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.116**	**0.116**	**0.116**

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_BH287_0.4_241004	BH287	0.4 - 0.5	04 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.094**	**0.108**	**0.1139**
0932_BH288_0.0_241007	BH288	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.332**	**0.332**	**0.332**
0932_BH288_0.6_241007	BH288	0.6 - 0.7	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.235**	**0.235**	**0.235**
0932_QC101_241007	BH288		03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.371**	**0.371**	**0.371**
0932_QC201_241007	BH288		07 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.33**	-	**0.35**
0932_BH289_0.0_241007	BH289	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.63**	**0.6511**	**0.6628**
0932_BH289_0.4_241007	BH289	0.4 - 0.5	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.399**	**0.399**	**0.399**
0932_QC102_241007	BH289		03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.601**	**0.6061**	**0.6134**
0932_QC202_241007	BH289		07 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.62**	-	**0.66**
0932_BH290_0.0_241007	BH290	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.308**	**0.308**	**0.308**
0932_BH290_0.4_241007	BH290	0.4 - 0.5	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.513**	**0.513**	**0.513**
0932_QC103_241007	BH290		03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.363**	**0.363**	**0.363**
0932_QC203_241007	BH290		07 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.34**	-	**0.36**
0932_BH291_0.0_241007	BH291	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0845**	**0.0845**	**0.0845**
0932_BH291_0.5_241007	BH291	0.5 - 0.6	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0441**	**0.0441**	*<0.05*
0932_BH292_0.0_241007	BH292	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.013**	**0.013**	*<0.05*
0932_BH292_0.4_241007	BH292	0.4 - 0.5	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.029**	**0.029**	*<0.05*
0932_BH293_0.0_241007	BH293	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0594**	**0.0594**	**0.0594**
0932_BH293_0.5_241007	BH293	0.5 - 0.6	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0098**	*<0.01*	*<0.05*
0932_BH294_0.0_241007	BH294	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0058**	*<0.01*	*<0.05*
0932_BH294_0.3_241007	BH294	0.3 - 0.4	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0649**	**0.0649**	**0.0649**
0932_BH295_0.0_241007	BH295	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0066**	*<0.01*	*<0.05*
0932_BH295_0.4_241007	BH295	0.4 - 0.5	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0315**	**0.0315**	*<0.05*
0932_BH296_0.0_241007	BH296	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.047**	**0.047**	*<0.05*
0932_BH296_0.4_241007	BH296	0.4 - 0.5	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0586**	**0.0586**	**0.0586**
0932_BH297_0.0_241007	BH297	0 - 0.1	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.056**	**0.056**	**0.056**
0932_BH297_1.1_241007	BH297	1.1 - 1.2	07 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.014**	**0.014**	*<0.05*
MW022_0.05_180227	MW022	0.05 - 0.15	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.074**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.378**	**0.414**	**0.525**
MW022_0.5_180227	MW022	0.5 - 0.6	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.568**	**0.5752**	**0.5752**
MW022_0.9_180227	MW022	0.9 - 1	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.263**	**0.263**	**0.263**
MW023_0.15_180227	MW023	0.15 - 0.25	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
MW023_0.5_180227	MW023	0.5 - 0.6	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.35**	**1.4423**	**1.4803**
MW023_0.9_180227	MW023	0.9 - 1	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.23**	**1.277**	**1.2985**
MW024_0.05_180227	MW024	0.05 - 0.15	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0075**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.137**	**0.137**	**0.1445**
MW024_0.25_180227	MW024	0.25 - 0.35	27 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.036**	**0.036**	*<0.05*
TP139_0.05_180302	TP139	0.05 - 0.15	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
TP139_1.4_180302	TP139	1.4 - 1.5	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.012**	**0.012**	*<0.05*
TP141_0.05_180302	TP141	0.05 - 0.15	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
TP141_0.4_180302	TP141	0.4 - 0.5	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0214**	**0.0214**	*<0.05*
TP142_0.05_180302	TP142	0.05 - 0.15	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
TP142_0.4_180302	TP142	0.4 - 0.5	02 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.06**	**0.06**	**0.06**
TP189_0.4_180315	TP189	0.4 - 0.4	15 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0066**	*<0.01*	*<0.05*
TP190_0.4_180315	TP190	0.4 - 0.4	15 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0099**	*<0.01*	*<0.05*
TP191_0.4_180315	TP191	0.4 - 0.4	15 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
TP192_0.4_180315	TP192	0.4 - 0.4	15 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0094**	*<0.01*	*<0.05*
TP201_0.2_181214	TP201	0.2 - 0.3	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.521**	**0.521**	**0.5293**
TP201_0.5_181214	TP201	0.5 - 0.6	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.329**	**0.329**	**0.3388**
TP202_0.2_181214	TP202	0.2 - 0.3	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.012**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.03**	**1.03**	**1.0894**
TP202_0.5_181214	TP202	0.5 - 0.6	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.02**	**0.02**	*<0.05*
TP203_0.2_181214	TP203	0.2 - 0.3	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.453**	**0.453**	**0.468**
TP203_0.5_181214	TP203	0.5 - 0.6	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1995**	**0.1995**	**0.2059**
TP204_0.2_181214	TP204	0.2 - 0.3	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.14**	**0.14**	**0.14**
TP204_0.5_181214	TP204	0.5 - 0.6	14 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.313**	**0.313**	**0.3207**
0932_TP205_0.0_241018	TP205	0 - 0.1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
0932_TP205_0.9_241018	TP205	0.9 - 1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0136**	**0.0136**	*<0.05*
0932_QC101_241018	TP205		18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
0932_QC201_241019	TP205		18 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.02**	-	**0.023**
0932_TP208_0.0_241018	TP208	0 - 0.1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0067**	*<0.01*	*<0.05*
0932_TP208_0.9_241018	TP208	0.9 - 1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.014**	**0.014**	*<0.05*
0932_TP209_0.0_241018	TP209	0 - 0.1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_TP209_0.9_241018	TP209	0.9 - 1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
0932_TP210_0.0_241018	TP210	0 - 0.1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_TP210_0.5_241018	TP210	0.5 - 0.6	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0421**	**0.0421**	*<0.05*
0932_TP211_0.0_241018	TP211	0 - 0.1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_TP211_0.9_241018	TP211	0.9 - 1	18 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.018**	**0.018**	*<0.05*
BH006_0.05_180226	BH006	0.05 - 0.15	26 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
BH006_0.25_180226	BH006	0.25 - 0.35	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH007_0.05_180226	BH007	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH008_0.05_180226	BH008	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH009_0.05_180226	BH009	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH010_0.05_180226	BH010	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH010_0.25_180226	BH010	0.25 - 0.35	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH011_0.05_180226	BH011	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH011_0.25_180226	BH011	0.25 - 0.35	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH012_0.05_180226	BH012	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH012_0.25_180226	BH012	0.25 - 0.35	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC200_180226	BH013	0.1 - 0.2	26 Feb 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0008**	**0.0008**	**0.0008**
BH013_0.1_180226	BH013	0.1 - 0.2	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC100_180226	BH013	0.1 - 0.2	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH013_0.25_180226	BH013	0.25 - 0.35	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW003_0.05_180226	MW003	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
MW004_0.05_180226	MW004	0.05 - 0.15	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.01**	**0.01**	<0.05
MW004_0.4_180226	MW004	0.4 - 0.5	26 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0095**	<0.01	<0.05
MW011_0.05_180313	MW011	0.05 - 0.15	13 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_MW202_0.1_241122	MW202	0.1 - 0.2	22 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_MW202_0.5_241122	MW202	0.5 - 0.6	22 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_MW203_0.05_241122	MW203	0.05 - 0.15	22 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_MW203_0.1_241122	MW203	0.1 - 0.2	22 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC224_180315	TP111	0 - 0.1	15 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0026**	**0.0026**	**0.0026**
QC124_180315	TP111	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP111_0.0_180315	TP111	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP111_0.4_180315	TP111	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP112_0.0_180315	TP112	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP112_0.4_180315	TP112	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP113_0.0_180315	TP113	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP113_0.4_180315	TP113	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP114_0.0_180315	TP114	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP114_0.4_180315	TP114	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP115_0.0_180315	TP115	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP115_0.4_180315	TP115	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP116_0.0_180315	TP116	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP116_0.4_180315	TP116	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP117_0.0_180315	TP117	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP117_0.4_180315	TP117	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP118_0.0_180315	TP118	0 - 0.1	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP118_0.4_180315	TP118	0.4 - 0.5	15 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH034_0.05_180309	BH034	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	**0.046**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**35.44**	**35.6053**	**35.9453**
BH034_0.3_180309	BH034	0.3 - 0.4	09 Mar 2018	<0.005	**0.55**	<0.005	<0.005	**0.015**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**186**	**200.23**	**206.624**
BH034_0.9_180309	BH034	0.9 - 1	09 Mar 2018	<0.005	**0.075**	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**14.6**	**19.135**	**21.015**
BH035_0.05_180309	BH035	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH035_0.4_180309	BH035	0.4 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1**	**0.1**	**0.1**
BH036_0.05_180309	BH036	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.01**	**0.01**	<0.05
BH036_0.4_180309	BH036	0.4 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.5296**	**0.5296**	**0.5296**
BH036_0.9_180228	BH036	0.9 - 1	28 Feb 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.121**	**0.135**	**0.135**
QC118_180309	BH037	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.105**	**0.105**	**0.105**
BH037_0.05_180309	BH037	0.05 - 0.15	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.131**	**0.131**	**0.131**
QC218_180309	BH037	0.05 - 0.15	09 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0329**	**0.0345**	**0.0363**
BH037_0.4_180309	BH037	0.4 - 0.5	09 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.778**	**0.778**	**0.778**
0932_BH260_0.0_241002	BH260	0 - 0.1	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.025**	**0.025**	<0.05
0932_BH260_0.3_241002	BH260	0.3 - 0.4	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
0932_BH261_0.0_241002	BH261	0 - 0.1	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH261_0.3_241002	BH261	0.3 - 0.4	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH262_0.0_241002	BH262	0 - 0.1	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.057**	**0.057**	**0.057**
0932_BH262_0.3_241002	BH262	0.3 - 0.4	02 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.056**	**0.056**	**0.056**
0932_BH263_0.0_241003	BH263	0 - 0.1	03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.027**	**0.027**	<0.05
0932_BH263_0.3_241003	BH263	0.3 - 0.4	03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.012**	**0.012**	<0.05
0932_QC201_241003	BH263		03 Oct 2024	<0.00010	<0.00010	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.019**	-	**0.02**
0932_QC102_241003	BH263		03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.01**	**0.01**	<0.05
0932_QC101_241003	BH263		03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.02**	**0.02**	<0.05
0932_QC202_241003	BH263		03 Oct 2024	<0.00010	**0.00093**	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.012**	-	**0.015**
0932_BH264_0.0_241003	BH264	0 - 0.1	03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0058**	<0.01	<0.05
0932_BH264_0.3_241003	BH264	0.3 - 0.4	03 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0092**	<0.01	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_QC203_241003	BH264		03 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.0060**	-	**0.0060**
0932_QC103_241003	BH264		03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0057**	*<0.01*	*<0.05*
0932_BH373_0.0_250407	BH373	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.017**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**53.69**	**53.982**	**54.322**
0932_BH373_0.3_250407	BH373	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0093**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**89.5**	**90.099**	**90.555**
0932_BH374_0.0_250407	BH374	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.092**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**38.4**	**38.789**	**39.1013**
0932_BH374_0.3_250407	BH374	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.096**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**206.7**	**208.156**	**211.0513**
0932_BH374_0.9_250407	BH374	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0081**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**10.9**	**15.88**	**18.7211**
0932_BH374_1.9_250407	BH374	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.41**	**0.5286**	**0.5856**
0932_BH374_2.9_250407	BH374	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.057**	**0.067**	**0.067**
0932_BH375_0.0_250407	BH375	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0067**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.93**	**1.604**	**2.3537**
0932_BH375_0.3_250407	BH375	0.3 - 0.4	07 Apr 2025	*<0.005*	**0.03**	*<0.005*	*<0.005*	**0.013**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**67**	**96.53**	**116.669**
0932_BH375_0.9_250407	BH375	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**8.1**	**10.38**	**11.638**
0932_BH375_1.9_250407	BH375	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.25**	**0.4086**	**0.4836**
0932_BH375_2.9_250407	BH375	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.68**	**1.091**	**1.254**
0932_QC105_250407	BH375		07 Apr 2025	*<0.005*	**0.016**	*<0.005*	*<0.005*	**0.0057**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**51**	**65.376**	**71.9817**
0932_QC205_250407	BH375		07 Apr 2025	*<0.1*	*<0.1*	**0.00026**	*<0.00020*	**0.019**	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**91**	-	**120**
0932_BH376_0.0_250407	BH376	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.03**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**4.48**	**4.6218**	**4.8848**
0932_BH376_0.3_250407	BH376	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**29.86**	**30.43**	**30.7754**
0932_BH376_0.9_250407	BH376	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**2.2**	**2.735**	**3.057**
0932_BH376_1.9_250407	BH376	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.008**	*<0.01*	*<0.05*
0932_BH376_2.9_250407	BH376	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.036**	**0.0561**	**0.0688**
0932_BH377_0.0_250407	BH377	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.032**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**95.4**	**96.096**	**96.4532**
0932_BH377_0.3_250407	BH377	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.024**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**92.5**	**96.81**	**98.8527**
0932_BH377_0.9_250407	BH377	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**8.1**	**11.52**	**12.99**
0932_BH377_1.9_250407	BH377	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.034**	**0.034**	*<0.05*
0932_BH377_2.9_250407	BH377	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.005**	*<0.01*	*<0.05*
0932_QC203_250407	BH377		07 Apr 2025	*<0.00050*	*<0.1*	*<0.00020*	*<0.00020*	**0.036**	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**58**	-	**64**
0932_QC103_250407	BH377		07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.037**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**14**	**18.97**	**22.7692**
0932_BH378_0.0_250407	BH378	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.01**	*<0.005*	*<0.01*	**0.015**	*<0.005*	*<0.01*	*<0.005*	**2.36**	**2.4077**	**2.5052**
0932_BH378_0.3_250407	BH378	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0094**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**65.1**	**65.572**	**66.1914**
0932_BH378_0.9_250407	BH378	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**11.4**	**15.85**	**18.2958**
0932_BH378_1.9_250407	BH378	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.209**	**0.2717**	**0.2987**
0932_BH378_2.9_250407	BH378	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.047**	**0.0523**	**0.0523**
0932_QC201_250407	BH378		07 Apr 2025	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	**0.015**	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	**0.0012**	*<0.0050*	**4.7**	-	**4.8**
0932_QC101_250407	BH378		07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.01**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**6.72**	**6.7914**	**6.8761**
MW018_0.05_180309	MW018	0.05 - 0.15	09 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0058**	*<0.01*	*<0.05*
MW018_0.4_180309	MW018	0.4 - 0.5	09 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.2383**	**0.2383**	**0.2435**
0932_MW204_0.05_241120	MW204	0.05 - 0.15	20 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_MW204_0.4_241120	MW204	0.4 - 0.5	20 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.096**	**0.096**	**0.096**
0932_QC101_241120	MW204		20 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH266_0.0_241003	BH266	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.152**	**0.152**	**0.152**
0932_BH266_0.3_241003	BH266	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.886**	**0.886**	**0.886**
0932_QC103_240930	BH266		30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH267_0.0_241003	BH267	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0093**	*<0.01*	*<0.05*
0932_BH267_0.3_241003	BH267	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.537**	**0.537**	**0.5435**
0932_BH268_0.0_241003	BH268	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.124**	**0.124**	**0.1306**
0932_BH268_0.3_241003	BH268	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.952**	**0.952**	**0.952**
0932_BH269_0.0_241003	BH269	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.14**	**0.14**	**0.1454**
0932_BH269_0.3_241003	BH269	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.563**	**0.563**	**0.563**
0932_BH270_0.0_241003	BH270	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.122**	**0.122**	**0.122**
0932_BH270_0.3_241003	BH270	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.345**	**0.345**	**0.345**
0932_BH271_0.0_241003	BH271	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.211**	**0.211**	**0.211**
0932_BH271_0.3_241003	BH271	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.152**	**0.167**	**0.1745**
0932_BH272_0.0_241003	BH272	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.044**	**0.044**	*<0.05*
0932_BH272_0.3_241003	BH272	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.309**	**0.314**	**0.3222**
0932_BH273_0.0_241003	BH273	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.133**	**0.133**	**0.133**
0932_BH273_0.3_241003	BH273	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.014**	**0.014**	*<0.05*
0932_BH274_0.0_241003	BH274	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.268**	**0.268**	**0.268**
0932_BH274_0.3_241003	BH274	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.09**	**1.21**	**1.3041**
0932_BH275_0.0_241003	BH275	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.025**	**0.025**	*<0.05*
0932_BH372_0.0_250408	BH372	0 - 0.1	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.015**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.66**	**1.8815**	**2.0175**
0932_BH372_0.3_250408	BH372	0.3 - 0.4	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**17.34**	**17.539**	**17.702**
0932_BH372_0.9_250408	BH372	0.9 - 1	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**9.7**	**13.39**	**14.685**
0932_BH372_1.9_250408	BH372	1.9 - 2	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**1.26**	**2.078**	**2.467**
0932_BH372_2.9_250408	BH372	2.9 - 3	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.42**	**0.6233**	**0.6836**
0932_QC106_250408	BH372		08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**11.32**	**11.5158**	**11.6748**

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_QC206_250408	BH372		08 Apr 2025	<0.00010	**0.0043**	**0.00071**	<0.00020	**0.032**	**0.0020**	<0.00020	<0.0010	<0.0010	**0.00061**	<0.0050	**7.4**	-	**7.7**
0932_BH379_0.0_250408	BH379	0 - 0.1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	**0.0050**	**0.024**	**0.024**	<0.05
0932_BH379_0.3_250408	BH379	0.3 - 0.4	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1555**	**0.1555**	**0.1555**
0932_BH379_0.9_250408	BH379	0.9 - 1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.053**	**0.053**	**0.053**
0932_BH379_1.9_250408	BH379	1.9 - 2	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
0932_BH380_0.0_250408	BH380	0 - 0.1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.144**	**0.1499**	**0.1499**
0932_BH380_0.3_250408	BH380	0.3 - 0.4	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.048**	**0.0554**	**0.0554**
0932_BH380_0.9_250408	BH380	0.9 - 1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.612**	**0.8266**	**0.9017**
0932_BH380_1.9_250408	BH380	1.9 - 2	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.035**	**0.0412**	<0.05
0932_QC101_250408	BH380		08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.073**	**0.0813**	**0.0813**
0932_QC201_250408	BH380		08 Apr 2025	<0.00010	<0.00010	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.63**	-	**0.65**
0932_BH381_0.0_250408	BH381	0 - 0.1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0575**	**0.0575**	**0.0575**
0932_BH381_0.3_250408	BH381	0.3 - 0.4	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.635**	**0.635**	**0.635**
0932_BH381_0.9_250408	BH381	0.9 - 1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.138**	**0.145**	**0.145**
0932_BH381_1.9_250408	BH381	1.9 - 2	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.041**	**0.0483**	<0.05
0932_BH382_0.0_250408	BH382	0 - 0.1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0494**	**0.0494**	<0.05
0932_BH382_0.3_250408	BH382	0.3 - 0.4	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.203**	**0.203**	**0.203**
0932_BH382_0.9_250408	BH382	0.9 - 1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.079**	**0.079**	**0.079**
0932_BH382_1.9_250408	BH382	1.9 - 2	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC105_250408	BH382		08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0527**	**0.0527**	**0.0527**
0932_QC205_250408	BH382		08 Apr 2025	<0.00010	<0.00010	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.048**	-	**0.055**
0932_BH383_0.0_250408	BH383	0 - 0.1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.138**	**0.138**	**0.1442**
0932_BH383_0.3_250408	BH383	0.3 - 0.4	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0722**	**0.0722**	**0.0722**
0932_BH383_0.9_250408	BH383	0.9 - 1	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.063**	**0.069**	**0.069**
0932_MW205_0.0_241120	MW205	0 - 0.1	20 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.044**	**0.044**	<0.05
0932_MW205_0.5_241120	MW205	0.5 - 0.6	20 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.222**	**0.222**	**0.222**
0932_MW212_0.0_241125	MW212	0 - 0.1	25 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.017**	<0.05
0932_MW212_0.5_241125	MW212	0.5 - 0.6	25 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.013**	**0.013**	<0.05
0932_QC101_241126	MW212		26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0237**	**0.0237**	<0.05
BH201_0.0_181203	BH201	0 - 0.1	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.017**	**0.017**	<0.05
BH201_0.4_181203	BH201	0.4 - 0.5	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH202_0.0_181203	BH202	0 - 0.1	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
BH202_0.4_181203	BH202	0.4 - 0.5	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH203_0.2_181203	BH203	0.2 - 0.3	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH203_0.5_181203	BH203	0.5 - 0.6	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH204_0.2_181203	BH204	0.2 - 0.3	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH204_0.5_181203	BH204	0.5 - 0.6	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC203_181203	BH205	0.1 - 0.2	03 Dec 2018	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	**0.0039**	**0.0039**	-
BH205_0.1_181203	BH205	0.1 - 0.2	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC102_181203	BH205	0.1 - 0.2	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH205_0.5_181203	BH205	0.5 - 0.6	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH206_0.0_181214	BH206	0.0 - 0.1	14 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.065**	**0.0744**	**0.0744**
BH206_0.5_181214	BH206	0.5 - 0.6	14 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH211_0.2_181203	BH211	0.2 - 0.3	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
BH211_0.9_181203	BH211	0.9 - 1	03 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0058**	<0.01	<0.05
0932_BH243_0.0_240930	BH243	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH243_0.3_240930	BH243	0.3 - 0.4	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC101_241001	BH243		01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC102_241001	BH243		01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH244_0.0_240930	BH244	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH244_0.3_240930	BH244	0.3 - 0.4	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC103_241001	BH244		01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH245_0.0_240930	BH245	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH245_0.4_240930	BH245	0.4 - 0.5	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH246_0.0_240930	BH246	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH246_0.7_240930	BH246	0.7 - 0.8	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH247_0.0_241001	BH247	0 - 0.1	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH247_0.7_241001	BH247	0.7 - 0.8	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH248_0.0_241001	BH248	0 - 0.1	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH248_0.5_241001	BH248	0.5 - 0.6	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH249_0.0_241001	BH249	0 - 0.1	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH249_0.5_241001	BH249	0.5 - 0.6	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH250_0.0_241001	BH250	0 - 0.1	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH250_0.5_241001	BH250	0.5 - 0.6	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH251_0.0_241001	BH251	0 - 0.1	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH251_0.4_241001	BH251	0.4 - 0.5	01 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_BH252_0.0_241001	BH252	0 - 0.1	01 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH252_0.2_241001	BH252	0.2 - 0.3	01 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH253_0.0_241002	BH253	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH253_0.3_241002	BH253	0.3 - 0.4	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_QC102_241002	BH253		02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH254_0.0_241002	BH254	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.035**	**0.035**	*<0.05*
0932_BH254_0.3_241002	BH254	0.3 - 0.4	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH255_0.0_241002	BH255	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0052**	*<0.01*	*<0.05*
0932_BH255_0.3_241002	BH255	0.3 - 0.4	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_QC101_240930	BH255		30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0051**	*<0.01*	*<0.05*
0932_QC102_240930	BH255		30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.077**	**0.077**	**0.077**
0932_QC101_241002	BH255		02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH256_0.0_241002	BH256	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0777**	**0.0777**	**0.0777**
0932_BH256_0.9_241002	BH256	0.9 - 1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.033**	**0.033**	*<0.05*
0932_BH257_0.0_241002	BH257	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH257_0.3_241002	BH257	0.3 - 0.4	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH259_0.0_241002	BH259	0 - 0.1	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.038**	**0.038**	*<0.05*
0932_BH259_0.3_241002	BH259	0.3 - 0.4	02 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.026**	**0.036**	*<0.05*
0932_BH265_0.0_241003	BH265	0 - 0.1	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.54**	**0.5559**	**0.5959**
0932_BH265_0.3_241003	BH265	0.3 - 0.4	03 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.179**	**0.2047**	**0.2228**
0932_BH370_0.0_250407	BH370	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.101**	**0.1163**	**0.1231**
0932_BH370_0.3_250415	BH370	0.3 - 0.4	15 Apr 2025	*<0.005*	**0.044**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.083**	**0.127**	**0.127**
0932_BH370_0.3_250407	BH370	0.3 - 0.4	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.032**	**0.032**	*<0.05*
0932_BH370_0.9_250407	BH370	0.9 - 1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0407**	**0.0407**	*<0.05*
0932_BH370_1.9_250407	BH370	1.9 - 2	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.155**	**0.1605**	**0.1605**
0932_BH370_2.9_250407	BH370	2.9 - 3	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0159**	**0.0159**	*<0.05*
0932_BH371_0.0_250408	BH371	0 - 0.1	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.02**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**8.66**	**8.803**	**9.097**
0932_BH371_0.3_250408	BH371	0.3 - 0.4	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**24**	**31.22**	**34.31**
0932_BH371_0.9_250408	BH371	0.9 - 1	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**2.26**	**2.668**	**2.8762**
0932_BH371_1.9_250408	BH371	1.9 - 2	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.21**	**0.2458**	**0.252**
0932_BH371_2.9_250408	BH371	2.9 - 3	08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.119**	**0.132**	**0.132**
0932_QC107_250408	BH371		08 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**33**	**41.4**	**45.47**
0932_QC207_250408	BH371		08 Apr 2025	*<0.00050*	*<0.01*	*<0.00020*	*<0.00020*	**0.0012**	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**30**	-	**42**
0932_BH402_0.0_250407	BH402	0 - 0.1	07 Apr 2025	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0712**	**0.0712**	**0.0712**
0932_MW206_0.05_241119	MW206	0.05 - 0.15	19 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.018**	**0.018**	*<0.05*
0932_MW206_3.0_241119	MW206	3 - 3.1	19 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0061**	*<0.01*	*<0.05*
0932_MW211_0.05_241125	MW211	0.05 - 0.15	25 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_MW211_1.0_241125	MW211	1 - 1.1	25 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_QC101_241125	MW211		25 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_SS269_220713	SS269	0 - 0.1	13 Jul 2022	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	**0.0009**	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	**0.0026**	*<0.0005*	**0.0095**	**0.0099**	**0.0142**
BH037_0.9_180228	BH037	0.9 - 1	28 Feb 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.154**	**0.1633**	**0.1691**
BH038_0.05_180309	BH038	0.05 - 0.15	09 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0395**	**0.0395**	*<0.05*
BH038_0.8_180309	BH038	0.8 - 0.9	09 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1097**	**0.1097**	**0.1097**
MW019_0.05_180309	MW019	0.05 - 0.15	09 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0555**	**0.0555**	**0.0555**
0932_MW207_0.0_241121	MW207	0 - 0.1	21 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_MW207_0.5_241121	MW207	0.5 - 0.6	21 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_QC101_241121	MW207		21 Nov 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
SS201_181211	SS201	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.005**	*<0.01*	*<0.05*
SS202_181211	SS202	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0062**	*<0.01*	*<0.05*
SS203_181211	SS203	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
SS204_181211	SS204	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.013**	**0.013**	*<0.05*
SS205_181211	SS205	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.019**	**0.019**	*<0.05*
SS206_181211	SS206	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.014**	**0.014**	*<0.05*
SS207_181211	SS207	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.3172**	**0.3172**	**0.3172**
SS208_181211	SS208	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1268**	**0.1268**	**0.1268**
QC210_181211	SS209	0 - 0.1	11 Dec 2018	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	**0.0480**	**0.0484**	**0.0491**
SS209_181211	SS209	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.065**	**0.065**	**0.065**
QC109_181211	SS209	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.068**	**0.068**	**0.068**
SS210_181211	SS210	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0056**	*<0.01*	*<0.05*
SS211_181211	SS211	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0064**	*<0.01*	*<0.05*
SS212_181211	SS212	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0069**	*<0.01*	*<0.05*
SS213_181211	SS213	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.04**	**0.04**	*<0.05*
SS214_181211	SS214	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.21**	**0.21**	**0.21**
SS215_181211	SS215	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0076**	*<0.01*	*<0.05*
SS216_181211	SS216	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0067**	*<0.01*	*<0.05*
SS217_181211	SS217	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.008**	*<0.01*	*<0.05*

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
QC208_181211	SS218	0 - 0.1	11 Dec 2018	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	**0.0052**	**0.0052**	**0.0052**
SS218_181211	SS218	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0088**	*<0.01*	*<0.05*
QC107_181211	SS218	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
SS219_181211	SS219	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.019**	**0.019**	*<0.05*
SS220_181211	SS220	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
SS221_181211	SS221	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.019**	**0.019**	*<0.05*
SS222_181211	SS222	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
SS223_181211	SS223	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0089**	*<0.01*	*<0.05*
SS224_181211	SS224	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.024**	**0.024**	*<0.05*
SS225_181211	SS225	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
SS226_181211	SS226	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.025**	**0.025**	*<0.05*
SS227_181211	SS227	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
SS228_181211	SS228	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
SS229_181211	SS229	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.028**	**0.028**	*<0.05*
SS230_181211	SS230	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.09**	**0.09**	**0.09**
SS231_181211	SS231	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0068**	*<0.01*	*<0.05*
SS232_181211	SS232	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0079**	*<0.01*	*<0.05*
SS233_181211	SS233	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
SS234_181211	SS234	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.018**	**0.018**	*<0.05*
SS235_181211	SS235	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.024**	**0.024**	*<0.05*
SS236_181211	SS236	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.015**	**0.015**	*<0.05*
SS237_181211	SS237	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.038**	**0.038**	*<0.05*
SS238_181211	SS238	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.096**	**0.096**	**0.096**
SS239_181211	SS239	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.036**	**0.036**	*<0.05*
SS240_181211	SS240	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
QC212_181211	SS241	0 - 0.1	11 Dec 2018	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*	**0.0098**	**0.0101**	**0.0101**
QC111_181211	SS241	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.017**	**0.017**	*<0.05*
SS241_181211	SS241	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.012**	**0.012**	*<0.05*
SS242_181211	SS242	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.039**	**0.039**	*<0.05*
SS243_181211	SS243	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.4561**	**0.4561**	**0.4561**
SS244_181211	SS244	0 - 0.1	11 Dec 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.045**	**0.045**	*<0.05*
BH019_0.05_180308	BH019	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0057**	*<0.01*	*<0.05*
BH019_0.5_180308	BH019	0.5 - 0.6	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
BH020_0.05_180308	BH020	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.065**	**0.065**	**0.065**
BH020_0.4_180308	BH020	0.4 - 0.5	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1**	**0.1**	**0.1**
BH021_0.05_180308	BH021	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.016**	**0.016**	*<0.05*
BH021_0.4_180308	BH021	0.4 - 0.5	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.012**	**0.012**	*<0.05*
BH022_0.05_180308	BH022	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.069**	**0.069**	**0.069**
BH022_0.4_180308	BH022	0.4 - 0.5	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.023**	**0.03**	*<0.05*
BH023_0.05_180308	BH023	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.016**	*<0.005*	*<0.005*	**0.01**	*<0.005*	**0.21**	**0.2172**	**0.2432**
BH023_0.4_180308	BH023	0.4 - 0.5	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.031**	**0.042**	*<0.05*
BH024_0.05_180308	BH024	0.05 - 0.15	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.014**	**0.014**	*<0.05*
BH024_0.4_180308	BH024	0.4 - 0.5	08 Mar 2018	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
0932_BH232_0.0_240930	BH232	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.0074**	*<0.01*	*<0.05*
0932_BH232_0.4_240930	BH232	0.4 - 0.5	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH234_0.0_240930	BH234	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.09**	**0.09**	**0.09**
0932_BH234_0.4_240930	BH234	0.4 - 0.5	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.049**	**0.0555**	**0.0555**
0932_BH235_0.0_240930	BH235	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.022**	**0.022**	*<0.05*
0932_BH235_0.4_240930	BH235	0.4 - 0.5	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
0932_BH236_0.0_240930	BH236	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH236_0.3_240930	BH236	0.3 - 0.4	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.05*
0932_BH237_0.0_240930	BH237	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.054**	**0.054**	**0.054**
0932_BH237_0.4_240930	BH237	0.4 - 0.5	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.029**	**0.029**	*<0.05*
0932_BH238_0.0_240930	BH238	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.011**	**0.011**	*<0.05*
0932_BH239_0.0_240930	BH239	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	**0.0099**	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.2096**	**0.2096**	**0.2195**
0932_BH239_0.5_240930	BH239	0.5 - 0.6	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.333**	**0.3401**	**0.3501**
0932_BH240_0.0_240930	BH240	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.019**	**0.019**	*<0.05*
0932_BH240_0.9_240930	BH240	0.9 - 1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.034**	**0.0401**	*<0.05*
0932_BH241_0.0_240930	BH241	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.01**	**0.01**	*<0.05*
0932_BH241_0.4_240930	BH241	0.4 - 0.5	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.12**	**0.12**	**0.12**
0932_BH242_0.0_240930	BH242	0 - 0.1	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.019**	**0.019**	*<0.05*
0932_BH242_0.3_240930	BH242	0.3 - 0.4	30 Sep 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.1163**	**0.1163**	**0.1163**
0932_BH276_0.0_241004	BH276	0 - 0.1	04 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.3**	**0.3**	**0.3**
0932_BH276_0.3_241004	BH276	0.3 - 0.4	04 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.476**	**0.4831**	**0.4831**
0932_QC101_241004	BH276		04 Oct 2024	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	**0.241**	**0.241**	**0.241**
0932_QC201_241004	BH276		04 Oct 2024	*<0.00010*	*<0.00010*	*<0.00020*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0010*	*<0.0010*	*<0.00020*	*<0.0050*	**0.088**	-	**0.095**

Table 1 – Soil Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
PFAS NEMP 2025 Ecological direct exposure – all land uses														
PFAS NEMP 2025 Interim ecological indirect exposure – all land uses														
Field ID	**Location Code**	**Depth**	**Date**											
0932_BH277_0.0_241004	BH277	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.267**	**0.267**	**0.2915**
0932_BH277_0.5_241004	BH277	0.5 - 0.6	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.27**	**0.2993**	**0.3951**
0932_QC102_241004	BH277		04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.31**	**0.31**	**0.3406**
0932_QC202_241004	BH277		04 Oct 2024	<0.00010	<0.00010	<0.00020	<0.00020	**0.0013**	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.45**	-	**0.46**
0932_BH278_0.0_241004	BH278	0 - 0.1	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.024**	**0.024**	<0.05
0932_BH278_0.3_241004	BH278	0.3 - 0.4	04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0056**	<0.01	<0.05
0932_QC103_241004	BH278		04 Oct 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.011**	**0.011**	<0.05
0932_QC203_241004	BH278		04 Oct 2024	<0.00010	<0.00010	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010	<0.0010	<0.00020	<0.0050	**0.026**	-	**0.027**
TP131_0.05_180314	TP131	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.084**	**0.084**	**0.084**
TP131_0.4_180314	TP131	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.053**	**0.0625**	**0.0625**
TP132_0.05_180314	TP132	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.053**	**0.053**	**0.053**
TP132_0.4_180314	TP132	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0774**	**0.0774**	**0.0774**
TP133_0.05_180314	TP133	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.076**	**0.076**	**0.076**
TP133_0.4_180314	TP133	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.393**	**0.416**	**0.4221**
TP134_0.05_180314	TP134	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.061**	**0.061**	**0.061**
TP134_0.5_180314	TP134	0.5 - 0.6	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.48**	**0.6246**	**0.6509**
TP134_0.8_180308	TP134	0.8 - 0.9	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
TP135_0.05_180314	TP135	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.015**	**0.015**	<0.05
TP135_0.4_180314	TP135	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC121_180314	TP136	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.476**	**0.476**	**0.476**
QC221_180314	TP136	0.05 - 0.15	14 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.394**	**0.402**	**0.411**
TP136_0.05_180314	TP136	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.899**	**0.9109**	**0.9269**
TP136_0.4_180314	TP136	0.4 - 0.5	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.175**	**0.184**	**0.184**
TP136_1.0_180308	TP136	1 - 1.1	08 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.73**	**0.832**	**0.873**
TP137_0.05_180314	TP137	0.05 - 0.15	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.035**	**0.035**	<0.05
TP137_0.5_180314	TP137	0.5 - 0.6	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.032**	**0.032**	<0.05
TP138_0.05_180313	TP138	0.05 - 0.15	13 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.013**	**0.013**	<0.05
TP138_0.5_180314	TP138	0.5 - 0.6	14 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.034**	**0.034**	<0.05
0932_BH225_0.0_240930	BH225	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH225_0.4_240930	BH225	0.4 - 0.5	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.13**	**0.13**	**0.13**
0932_BH226_0.4_240930	BH226	0.4 - 0.5	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH227_0.0_240930	BH227	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0053**	<0.01	<0.05
0932_BH227_0.5_240930	BH227	0.5 - 0.6	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH228_0.0_240930	BH228	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH229_0.0_240930	BH229	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH229_0.4_240930	BH229	0.4 - 0.5	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0775**	**0.0775**	**0.0775**
0932_BH230_0.0_240930	BH230	0 - 0.1	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BH230_0.4_240930	BH230	0.4 - 0.5	30 Sep 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
QC225_180316	TP106	0 - 0.1	16 Mar 2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0146**	**0.0146**	**0.0146**

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Ecological direct exposure – all land uses

HEPA, March 2025, PFAS NEMP 2025 Interim ecological indirect exposure – all lanc

Point Cook ERA

Table 2 - Surface Water Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.05
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Investigation Area**	**Date**																	
0932_SW202_250430	SW202	On-base Drain	30 Apr 2025	**0.04**	**0.05**	**0.87**	**0.04**	**1.63**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.15**	*<0.02*	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC101_241204	SW202	On-base Drain	04 Dec 2024	-	-	**0.63**	-	**1.7**	-	-	-	-	-	-	**0.033**	-	-	-	-	-	-	-
0932_QC201_241204	SW202	On-base Drain	04 Dec 2024	-	-	**0.53**	-	**1.8**	-	-	-	-	-	-	**0.034**	-	-	-	-	-	-	-
0932_SW202_241204	SW202	On-base Drain	04 Dec 2024	**0.026**	**0.056**	**0.59**	**0.036**	**2.4**	**0.005**	**0.002**	**0.022**	**0.029**	**0.12**	**0.011**	**0.039**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW202_181210	SW202	On-base Drain	10 Dec 2018	**0.11**	**0.15**	**2.1**	**0.10**	**5.0**	-	*<0.01*	*<0.05*	**0.06**	**0.48**	**0.05**	**0.18**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW203_250430	SW203	On-base Drain	30 Apr 2025	**0.04**	**0.06**	**0.90**	**0.04**	**1.66**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.16**	*<0.02*	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW203_241204	SW203	On-base Drain	04 Dec 2024	**0.031**	**0.060**	**0.72**	**0.037**	**2.1**	**0.006**	**0.003**	**0.023**	**0.018**	**0.13**	**0.013**	**0.039**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW203_181210	SW203	On-base Drain	10 Dec 2018	**0.06**	**0.08**	**1.0**	**0.04**	**2.3**	-	*<0.01*	*<0.05*	**0.04**	**0.24**	**0.03**	**0.09**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW205_181213	SW205	On-base Drain	13 Dec 2018	*<0.01*	*<0.01*	**0.11**	*<0.01*	**0.16**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW206_181213	SW206	On-base Drain	13 Dec 2018	*<0.01*	*<0.01*	**0.10**	*<0.01*	**0.16**	-	*<0.01*	**0.07**	**0.02**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW207_250508	SW207	On-base Drain	08 May 2025	**0.10**	**0.08**	**0.40**	*<0.02*	**0.46**	*<0.02*	*<0.02*	*<0.1*	**0.05**	**0.30**	**0.03**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW207_181213	SW207	On-base Drain	13 Dec 2018	**0.01**	**0.01**	**0.15**	*<0.01*	**0.93**	-	*<0.01*	*<0.05*	**0.02**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW207_241202	SW207	On-base Drain	02 Dec 2024	**8.1**	**6.3**	**38**	**0.93**	**7.7**	*<0.03*	*<0.03*	**3.0**	**7.1**	**31**	**1.7**	**1.7**	*<0.03*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW208_250508	SW208	On-base Drain	08 May 2025	**0.03**	*<0.02*	**0.25**	*<0.02*	**0.63**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.05**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW208_181213	SW208	On-base Drain	13 Dec 2018	**0.01**	**0.01**	**0.14**	*<0.01*	**1.1**	-	*<0.01*	*<0.05*	**0.02**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW208_241202	SW208	On-base Drain	02 Dec 2024	**0.049**	**0.047**	**0.51**	**0.020**	**1.2**	**0.012**	**0.005**	**0.037**	**0.065**	**0.15**	**0.026**	**0.025**	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW209_241202	SW209	On-base Drain	02 Dec 2024	**12**	**9.1**	**38**	**1.00**	**10**	*<0.03*	*<0.03*	**5.2**	**11**	**45**	**2.0**	**1.6**	*<0.03*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW209_181213	SW209	On-base Drain	13 Dec 2018	**0.03**	**0.06**	**1.00**	**0.13**	**8.3**	-	*<0.01*	*<0.05*	**0.03**	**0.12**	**0.02**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW210_181213	SW210	On-base Drain	13 Dec 2018	*<0.01*	*<0.01*	**0.07**	*<0.01*	**0.05**	-	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW212_181213	SW212	On-base Drain	13 Dec 2018	**0.05**	**0.19**	**2.8**	**0.26**	**23**	-	*<0.01*	*<0.05*	**0.03**	**0.23**	**0.05**	**0.10**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW213_250430	SW213	On-base Drain	30 Apr 2025	**0.03**	**0.05**	**0.63**	*<0.02*	**0.74**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.10**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW213_181210	SW213	On-base Drain	10 Dec 2018	**0.39**	**0.76**	**7.3**	**0.43**	**13**	-	*<0.01*	**0.19**	**0.38**	**1.8**	**0.19**	**0.34**	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW214_241210	SW214	On-base Drain	10 Dec 2024	**0.007**	**0.008**	**0.091**	**0.005**	**0.12**	*<0.001*	*<0.001*	**0.010**	**0.013**	**0.038**	**0.010**	**0.008**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW214_250430	SW214	On-base Drain	30 Apr 2025	**0.04**	**0.04**	**0.63**	*<0.02*	**0.98**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.09**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC102_241210	SW214	On-base Drain	10 Dec 2024	**0.12**	**0.21**	**1.6**	**0.17**	**2.6**	**0.018**	**0.006**	**0.006**	**0.077**	**0.34**	**0.059**	**0.089**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC202_241210	SW214	On-base Drain	10 Dec 2024	**0.13**	**0.17**	**2.2**	**0.14**	**4.1**	-	*<0.020*	*<0.020*	**0.059**	**0.46**	**0.054**	**0.067**	*<0.010*	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
SW214_181210	SW214	On-base Drain	10 Dec 2018	**0.16**	**0.26**	**3.5**	**0.17**	**5.1**	-	*<0.01*	**0.08**	**0.16**	**0.80**	**0.09**	**0.22**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW215_241203	SW215	On-base Drain	03 Dec 2024	**3.4**	**6.7**	**46**	**1.1**	**11**	*<0.03*	*<0.03*	**0.15**	**1.8**	**18**	**1.7**	**1.9**	**0.012**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC104_241203	SW215	On-base Drain	03 Dec 2024	**4.5**	**9.0**	**59**	**1.4**	**13**	*<0.03*	*<0.03*	**0.20**	**2.2**	**22**	**2.4**	**2.4**	*<0.03*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC204_241203	SW215	On-base Drain	03 Dec 2024	**4.7**	**8.7**	**56**	**1.8**	**13**	-	*<0.020*	**1.1**	**3.0**	**22**	**2.2**	**2.2**	**0.013**	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
SW215_181213	SW215	On-base Drain	13 Dec 2018	**1.2**	**3.0**	**13**	**0.74**	**20**	-	*<0.01*	**0.30**	**0.84**	**5.9**	**0.48**	**0.59**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW216_241210	SW216	On-base Drain	10 Dec 2024	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC202_250501	SW216	On-base Drain	08 May 2025	**0.01**	*<0.01*	**0.08**	*<0.01*	**0.09**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW216_181212	SW216	On-base Drain	12 Dec 2018	*<0.01*	*<0.01*	**0.06**	*<0.01*	**0.12**	-	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC102_250501	SW216	On-base Drain	30 Apr 2025	*<0.02*	*<0.02*	**0.08**	*<0.02*	**0.14**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW216_250401	SW216	On-base Drain	01 Apr 2025	*<0.02*	*<0.02*	**0.08**	*<0.02*	**0.15**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW217_250430	SW217	On-base Drain	30 Apr 2025	**0.30**	**0.41**	**6.44**	**0.35**	**20.6**	**0.37**	**0.51**	**0.1**	**0.17**	**1.12**	**0.12**	**0.48**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW217_181212	SW217	On-base Drain	12 Dec 2018	**0.22**	**0.42**	**4.9**	**0.27**	**25**	-	**0.03**	**0.10**	**0.15**	**0.70**	**0.07**	**0.32**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW218_181212	SW218	On-base Drain	12 Dec 2018	**0.02**	**0.03**	**0.33**	**0.02**	**1.8**	-	*<0.01*	*<0.05*	**0.02**	**0.07**	**0.01**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW219_250430	SW219	On-base Drain	30 Apr 2025	**0.04**	*<0.02*	**0.18**	*<0.02*	**0.37**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.03**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW219_181212	SW219	On-base Drain	12 Dec 2018	**0.02**	**0.02**	**0.28**	**0.01**	**1.1**	-	*<0.01*	*<0.05*	**0.02**	**0.05**	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW220_181211	SW220	On-base Drain	11 Dec 2018	**0.28**	**0.40**	**4.6**	**0.25**	**13**	-	*<0.01*	**0.19**	**0.31**	**1.4**	**0.19**	**0.25**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW220_250430	SW220	On-base Drain	30 Apr 2025	**0.12**	**0.14**	**1.92**	**0.09**	**4.55**	**0.03**	*<0.02*	*<0.1*	**0.11**	**0.58**	**0.11**	**0.10**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW220_241204	SW220	On-base Drain	04 Dec 2024	**0.18**	**0.28**	**1.9**	**0.28**	**7.7**	**0.078**	**0.015**	**0.11**	**0.16**	**0.72**	**0.15**	**0.17**	**0.008**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW221_181212	SW221	On-base Drain	12 Dec 2018	**0.01**	**0.01**	**0.12**	*<0.01*	**0.24**	-	*<0.01*	**0.20**	**0.02**	**0.03**	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW222_250430	SW222	On-base Drain	30 Apr 2025	**0.23**	**0.29**	**3.76**	**0.20**	**10.9**	**0.12**	**0.03**	**0.2**	**0.22**	**1.31**	**0.23**	**0.21**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0937_SW222_250319	SW222	On-base Drain	19 Mar 2025	**0.27**	**0.36**	**4.0**	**0.20**	**16**	**0.21**	**0.12**	**0.18**	**0.19**	**1.1**	**0.21**	**0.24**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW222_181211	SW222	On-base Drain	11 Dec 2018	**0.85**	**1.2**	**9.1**	**0.69**	**27**	-	*<0.01*	**0.53**	**0.78**	**4.1**	**0.50**	**0.67**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW223_181211	SW223	On-base Drain	11 Dec 2018	**2.7**	**2.5**	**33**	**2.2**	**120**	-	**0.21**	**1.7**	**2.3**	**16**	**4.0**	**2.7**	**0.10**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW223_250430	SW223	On-base Drain	30 Apr 2025	**0.44**	**0.55**	**7.03**	**0.35**	**17.4**	**0.16**	**0.04**	**0.3**	**0.47**	**3.54**	**0.65**	**0.41**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0937_SW223_250317	SW223	On-base Drain	17 Mar 2025	**4.0**	**3.7**	**41**	**2.3**	**200**	**3.5**	**1.3**	**1.2**	**2.2**	**11**	**1.8**	**2.4**	**0.08**	*<0.5*	**0.02**	*<0.01*	*<0.01*	*<0.01*	-
0932_SW224_250430	SW224	On-base Drain	30 Apr 2025	**0.11**	**0.18**	**2.65**	**0.08**	**3.02**	*<0.02*	*<0.02*	*<0.1*	**0.04**	**0.45**	**0.08**	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW224_181212	SW224	On-base Drain	12 Dec 2018	**0.26**	**0.60**	**6.4**	**0.16**	**7.2**	-	*<0.01*	**0.09**	**0.20**	**1.8**	**0.24**	**0.20**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-

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	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.05
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Investigation Area**	**Date**																	
0932_SW225_250430	SW225	On-base Drain	30 Apr 2025	**0.03**	**0.03**	**0.44**	**0.02**	**1.15**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.18**	**0.03**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW225_241204	SW225	On-base Drain	04 Dec 2024	**0.086**	**0.21**	**1.9**	**0.092**	**3.8**	**0.029**	**0.013**	**0.047**	**0.066**	**0.46**	**0.061**	**0.068**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW225_181212	SW225	On-base Drain	12 Dec 2018	**0.22**	**0.33**	**3.3**	**0.11**	**9.0**	-	*<0.01*	**0.13**	**0.18**	**0.97**	**0.13**	**0.16**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
SW232_181210	SW232	On-base Drain	10 Dec 2018	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW232_241203	SW232	On-base Drain	03 Dec 2024	**0.013**	**0.016**	**0.16**	**0.007**	**0.15**	*<0.001*	*<0.001*	*<0.005*	**0.008**	**0.037**	**0.004**	**0.012**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW233_181213	SW233	On-base Drain	13 Dec 2018	*<0.01*	*<0.01*	**0.03**	*<0.01*	**0.11**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW233_241204	SW233	On-base Drain	04 Dec 2024	**0.037**	**0.033**	**0.16**	**0.007**	**0.40**	*<0.001*	*<0.001*	**0.006**	**0.017**	**0.018**	*<0.001*	**0.015**	**0.004**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW234_250401	SW234	On-base Drain	01 Apr 2025	*<0.02*	*<0.02*	**0.10**	*<0.02*	**0.09**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_SW234_241204	SW234	On-base Drain	04 Dec 2024	**0.010**	**0.007**	**0.065**	**0.003**	**0.11**	*<0.001*	*<0.001*	**0.010**	**0.029**	**0.006**	**0.005**	**0.005**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC101_250501	SW234	On-base Drain	01 May 2025	*<0.02*	*<0.02*	**0.10**	*<0.02*	**0.11**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
SW234_181210	SW234	On-base Drain	10 Dec 2018	**0.02**	**0.02**	**0.17**	*<0.01*	**0.14**	-	*<0.01*	*<0.05*	**0.01**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC201_250501	SW234	On-base Drain	08 May 2025	*<0.01*	*<0.01*	**0.08**	*<0.01*	**0.18**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC201_250325	SW277	On-base Drain	25 Mar 2025	*<0.010*	*<0.010*	*<0.010*	*<0.010*	**0.059**	-	*<0.020*	*<0.020*	*<0.020*	*<0.010*	*<0.010*	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_SW277_250325	SW277	On-base Drain	25 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.07**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW278_250318	SW278	On-base Drain	18 Mar 2025	*<0.01*	*<0.01*	**0.09**	*<0.01*	**0.33**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW279_250318	SW279	On-base Drain	18 Mar 2025	**0.02**	**0.02**	**0.38**	**0.03**	**1.1**	*<0.01*	*<0.01*	*<0.05*	**0.04**	**0.20**	*<0.01*	**0.08**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC201_250611	SW280	On-base Drain	11 Jun 2025	*<0.010*	*<0.010*	**0.011**	*<0.010*	**0.62**	-	*<0.020*	*<0.020*	*<0.020*	*<0.010*	*<0.010*	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_QC202_250611	SW280	On-base Drain	16 Jun 2025	**0.052**	**0.015**	**0.21**	*<0.010*	**1.1**	-	*<0.020*	*<0.020*	**0.028**	**0.084**	*<0.010*	**0.011**	*<0.010*	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0937_SW281_250319	SW281	On-base Drain	19 Mar 2025	*<0.01*	**0.01**	**0.12**	**0.02**	**1.3**	**0.06**	**0.04**	*<0.05*	**0.02**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW282_02_250317	SW282	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.10**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW282_01_250317	SW282	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	**0.02**	*<0.01*	**0.14**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW283_02_250317	SW283	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW283_01_250317	SW283	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.09**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW285_02_250317	SW285	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW285_01_250317	SW285	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW286_01_250317	SW286	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW286_02_250317	SW286	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW287_02_250317	SW287	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	**0.04**	*<0.01*	**1.4**	**0.08**	**0.07**	*<0.05*	**0.01**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW287_01_250317	SW287	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	**0.05**	*<0.01*	**4.4**	**0.27**	**0.27**	*<0.05*	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW288_02_250317	SW288	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW288_01_250317	SW288	On-base Drain	17 Mar 2025	*<0.01*	*<0.01*	*<0.01*	*<0.01*	**0.12**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0937_SW290_250320	SW290	On-base Drain	20 Mar 2025	**29**	**15**	**36**	**0.54**	**8.5**	*<0.1*	*<0.01*	**16**	**18**	**68**	**1.9**	**0.97**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW291_250502	SW291	On-base Drain	02 May 2025	**3.02**	**2.74**	**19.5**	**0.96**	**21.7**	**0.18**	**0.06**	**1.8**	**2.26**	**7.96**	**0.84**	**1.47**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC102_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0001*	*<0.001*	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC202_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	**0.00059**	*<0.0010*	**0.0018**	*<0.0010*	**0.0033**	-	*<0.0020*	*<0.0020*	*<0.0020*	**0.0013**	**0.0010**	**0.0011**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_SW266_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	*<0.001*	*<0.001*	**0.001**	*<0.001*	**0.0033**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	**0.00054**	*<0.0010*	**0.0023**	*<0.0010*	**0.0041**	-	*<0.0020*	*<0.0040*	*<0.0020*	**0.0013**	**0.00073**	**0.0012**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_QC101_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	**0.001**	*<0.001*	**0.003**	*<0.001*	**0.0059**	*<0.001*	*<0.001*	*<0.005*	**0.001**	**0.002**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW266_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.001*	**0.003**	*<0.001*	**0.0059**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.001**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	**0.0020**	*<0.0010*	**0.0032**	*<0.0010*	**0.0076**	-	*<0.0020*	**0.0083**	**0.0032**	**0.0031**	**0.0030**	**0.0046**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_QC101_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	**0.002**	*<0.001*	**0.002**	*<0.001*	**0.0077**	*<0.001*	*<0.001*	*<0.005*	**0.010**	**0.004**	**0.002**	**0.003**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW266_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	**0.002**	*<0.001*	**0.003**	*<0.001*	**0.011**	*<0.001*	*<0.001*	*<0.005*	**0.004**	**0.006**	**0.002**	**0.006**	**0.001**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW267_241127	SW267	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.001*	**0.003**	*<0.001*	**0.0050**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW267_250519	SW267	Port Phillip Bay - Inshore	19 May 2025	**0.002**	*<0.001*	**0.006**	*<0.001*	**0.014**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW268_250519	SW268	Port Phillip Bay - Inshore	19 May 2025	**0.002**	*<0.001*	**0.005**	*<0.001*	**0.0074**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.002**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW268_241204	SW268	Port Phillip Bay - Inshore	04 Dec 2024	**0.002**	**0.003**	**0.028**	**0.001**	**0.044**	*<0.001*	*<0.001*	*<0.005*	**0.001**	**0.006**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW269_241127	SW269	Port Phillip Bay - Inshore	27 Nov 2024	**0.001**	*<0.001*	**0.006**	*<0.001*	**0.019**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.002**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW269_250520	SW269	Port Phillip Bay - Inshore	20 May 2025	**0.010**	**0.010**	**0.062**	**0.002**	**0.039**	*<0.001*	*<0.001*	*<0.005*	**0.009**	**0.022**	**0.003**	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW270_250520	SW270	Port Phillip Bay - Inshore	20 May 2025	**0.001**	*<0.001*	**0.002**	*<0.001*	**0.0054**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW270_241127	SW270	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.001*	**0.003**	*<0.001*	**0.014**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.001**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW271_250520	SW271	Port Phillip Bay - Inshore	20 May 2025	**0.001**	*<0.001*	**0.004**	*<0.001*	**0.011**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.002**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW271_241205	SW271	Port Phillip Bay - Inshore	05 Dec 2024	*<0.001*	**0.001**	**0.007**	*<0.001*	**0.017**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW271_241126	SW271	Port Phillip Bay - Inshore	26 Nov 2024	**0.001**	*<0.001*	**0.009**	*<0.001*	**0.024**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-

Point Cook ERA

Table 2 - Surface Water Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.05
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Investigation Area**	**Date**																	
0932_SW272_202521	SW272	Port Phillip Bay - Inshore	21 May 2025	**0.002**	*<0.001*	**0.009**	*<0.001*	**0.018**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.003**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC103_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	**0.002**	*<0.001*	**0.013**	*<0.001*	**0.034**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.003**	*<0.001*	**0.002**	*<0.001*	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC203_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	**0.0015**	**0.0012**	**0.012**	*<0.0010*	**0.034**	-	*<0.0020*	*<0.0040*	*<0.0020*	**0.0031**	**0.00089**	**0.0026**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_SW272_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	**0.002**	*<0.001*	**0.013**	*<0.001*	**0.035**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.003**	*<0.001*	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW273_241126	SW273	Port Phillip Bay - Inshore	26 Nov 2024	**0.002**	**0.002**	**0.016**	*<0.001*	**0.034**	*<0.001*	*<0.001*	*<0.005*	*<0.005*	**0.004**	*<0.001*	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW273_250520	SW273	Port Phillip Bay - Inshore	20 May 2025	**0.004**	**0.004**	**0.034**	**0.001**	**0.042**	*<0.001*	*<0.001*	*<0.005*	**0.006**	**0.012**	**0.002**	**0.005**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW274_241126	SW274	Port Phillip Bay - Inshore	26 Nov 2024	**0.002**	*<0.001*	**0.015**	*<0.001*	**0.041**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.004**	*<0.001*	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW274_202521	SW274	Port Phillip Bay - Inshore	21 May 2025	**0.003**	**0.003**	**0.032**	**0.002**	**0.060**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.009**	**0.001**	**0.006**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW275_241128	SW275	Port Phillip Bay - Inshore	28 Nov 2024	**0.004**	**0.004**	**0.041**	**0.002**	**0.044**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.010**	**0.002**	**0.005**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW275_250521	SW275	Port Phillip Bay - Inshore	21 May 2025	**0.005**	**0.005**	**0.046**	**0.003**	**0.10**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.012**	**0.002**	**0.008**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_241128	SW275	Port Phillip Bay - Inshore	28 Nov 2024	**0.0066**	**0.0058**	**0.094**	**0.0067**	**0.17**	-	*<0.0020*	*<0.0040*	**0.0037**	**0.020**	**0.0024**	**0.010**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_SW001_241203	SW001	RAAF Lake	03 Dec 2024	**11**	**8.7**	**33**	**0.88**	**13**	*<0.07*	*<0.07*	**4.3**	**10**	**48**	**2.0**	**1.3**	**0.016**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW001_201109	SW001	RAAF Lake	09 Nov 2020	**8.28**	**7.78**	**33.5**	**1.02**	**7.71**	-	*<0.02*	**6.8**	**5.43**	**33.0**	**1.42**	**1.30**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC203_241203	SW002	RAAF Lake	03 Dec 2024	**12**	**6.5**	**26**	**0.96**	**13**	-	*<0.020*	**5.5**	**11**	**51**	**1.9**	**1.1**	**0.016**	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_SW002_241203	SW002	RAAF Lake	03 Dec 2024	**12**	**14**	**110**	**8.5**	**130**	**0.24**	*<0.2*	**4.0**	**11**	**59**	**3.7**	**8.8**	**0.15**	**0.016**	**0.002**	*<0.001*	*<0.001*	*<0.001*	-
0932_QC103_241203	SW002	RAAF Lake	03 Dec 2024	**10**	**8.7**	**38**	**2.0**	**28**	*<0.07*	*<0.07*	**3.6**	**8.7**	**42**	**1.9**	**2.3**	*<0.07*	*<0.07*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW002_201109	SW002	RAAF Lake	09 Nov 2020	**8.30**	**7.16**	**23.0**	**0.48**	**4.94**	-	*<0.02*	**6.7**	**5.51**	**30.5**	**1.18**	**0.68**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_SW003_241203	SW003	RAAF Lake	03 Dec 2024	**11**	**16**	**310**	**16**	**150**	**0.21**	*<0.2*	**3.8**	**9.1**	**62**	**7.6**	**22**	**0.22**	**0.017**	**0.002**	*<0.001*	*<0.001*	*<0.001*	-
0932_QC108_201109	SW003	RAAF Lake	10 Nov 2020	**8.15**	**7.35**	**25.1**	**0.32**	**2.60**	-	*<0.02*	**5.4**	**5.36**	**35.4**	**1.30**	**0.60**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_SW003_201109	SW003	RAAF Lake	09 Nov 2020	**8.02**	**7.85**	**24.9**	**0.36**	**3.10**	-	*<0.02*	**5.7**	**5.38**	**31.9**	**1.26**	**0.59**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC208_201109	SW003	RAAF Lake	09 Nov 2020	**8.8**	**6.0**	**18**	**0.88**	**7.6**	*<0.01*	*<0.01*	**5.1**	**8.0**	**36**	**2.3**	**1.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW004_201109	SW004	RAAF Lake	09 Nov 2020	**8.10**	**7.97**	**25.7**	**0.34**	**2.62**	-	*<0.02*	**7.1**	**5.16**	**32.4**	**1.30**	**0.64**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_SW004_241203	SW004	RAAF Lake	03 Dec 2024	**12**	**12**	**130**	**5.6**	**52**	*<0.07*	*<0.07*	**3.3**	**10**	**53**	**4.0**	**8.4**	**0.057**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW005_201109	SW005	RAAF Lake	09 Nov 2020	**7.67**	**7.68**	**21.9**	**0.22**	**1.69**	-	*<0.02*	**7.8**	**5.41**	**33.1**	**1.33**	**0.49**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_SW005_241203	SW005	RAAF Lake	03 Dec 2024	**12**	**9.4**	**42**	**0.91**	**9.1**	*<0.07*	*<0.07*	**4.9**	**11**	**51**	**2.1**	**1.8**	**0.013**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW006_201109	SW006	RAAF Lake	09 Nov 2020	**7.98**	**7.44**	**24.9**	**0.26**	**1.67**	-	*<0.02*	**7.5**	**5.52**	**33.6**	**1.38**	**0.53**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_SW006_241203	SW006	RAAF Lake	03 Dec 2024	**17**	**21**	**190**	**4.8**	**47**	**0.084**	*<0.07*	**6.6**	**15**	**82**	**7.0**	**8.5**	**0.054**	**0.003**	**0.001**	*<0.001*	*<0.001*	*<0.001*	-
SW227_181213	SW227	RAAF Lake	13 Dec 2018	**0.60**	**1.1**	**8.2**	**0.76**	**19**	-	*<0.01*	**0.23**	**0.43**	**2.1**	**0.17**	**0.32**	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW227_241202	SW227	RAAF Lake	02 Dec 2024	**10.0**	**7.0**	**38**	**3.5**	**50**	**0.071**	*<0.07*	**3.4**	**10.0**	**42**	**1.5**	**3.1**	*<0.07*	*<0.07*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW228_181213	SW228	RAAF Lake	13 Dec 2018	**0.02**	**0.03**	**0.29**	**0.02**	**1.1**	-	*<0.01*	*<0.05*	**0.02**	**0.09**	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW228_241202	SW228	RAAF Lake	02 Dec 2024	**11**	**8.7**	**26**	**0.45**	**3.3**	*<0.02*	*<0.02*	**4.7**	**11**	**43**	**1.7**	**0.90**	*<0.02*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_SW229_241203	SW229	RAAF Lake	03 Dec 2024	**12**	**8.8**	**29**	**0.43**	**4.1**	*<0.07*	*<0.07*	**4.9**	**12**	**47**	**1.9**	**0.93**	**0.006**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW229_181213	SW229	RAAF Lake	13 Dec 2018	**6.4**	**5.6**	**10**	**0.21**	**4.3**	-	*<0.01*	**1.9**	**5.2**	**25**	**0.73**	**0.22**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_SW230_241203	SW230	RAAF Lake	03 Dec 2024	**13**	**12**	**77**	**2.4**	**22**	*<0.07*	*<0.07*	**4.1**	**12**	**58**	**3.3**	**4.0**	**0.023**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
SW230_181213	SW230	RAAF Lake	13 Dec 2018	**5.5**	**4.7**	**9.2**	**0.24**	**4.1**	-	*<0.01*	**1.8**	**5.0**	**24**	**0.71**	**0.24**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Freshwater 90%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%

Point Cook ERA

Table 2 - Surface Water Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.005	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.005	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														
Field ID	**Location Code**	**Investigation Area**	**Date**													
0932_SW202_250430	SW202	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**2.50**	**2.75**	**2.84**
0932_QC101_241204	SW202	On-base Drain	04 Dec 2024	-	*<0.005*	-	-	-	-	-	-	-	-	-	**2.33**	-	-
0932_QC201_241204	SW202	On-base Drain	04 Dec 2024	-	*<0.005*	-	-	-	-	-	-	-	-	-	**2.33**	-	-
0932_SW202_241204	SW202	On-base Drain	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	**0.012**	*<0.005*	*<0.005*	*<0.005*	**0.006**	*<0.005*	*<0.005*	**2.99**	**3.237**	**3.372**
SW202_181210	SW202	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**7.1**	**7.98**	**8.23**
0932_SW203_250430	SW203	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**2.56**	**2.82**	**2.92**
0932_SW203_241204	SW203	On-base Drain	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	**0.014**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**2.82**	**3.074**	**3.214**
SW203_181210	SW203	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**3.3**	**3.76**	**3.88**
SW205_181213	SW205	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.27**	**0.29**	**0.29**
SW206_181213	SW206	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.26**	**0.37**	**0.37**
0932_SW207_250508	SW207	On-base Drain	08 May 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.86**	**1.36**	**1.46**
SW207_181213	SW207	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.08**	**1.15**	**1.16**
0932_SW207_241202	SW207	On-base Drain	02 Dec 2024	*<0.001*	*<0.03*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**45.7**	**98.3**	**109.43**
0932_SW208_250508	SW208	On-base Drain	08 May 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.88**	**0.97**	**0.97**
SW208_181213	SW208	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.24**	**1.31**	**1.32**
0932_SW208_241202	SW208	On-base Drain	02 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	**0.009**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**1.71**	**2.062**	**2.177**
0932_SW209_241202	SW209	On-base Drain	02 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**48**	**124.8**	**140.3**
SW209_181213	SW209	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**9.3**	**9.54**	**9.73**
SW210_181213	SW210	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.12**	**0.13**	**0.13**
SW212_181213	SW212	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**25.8**	**26.26**	**26.71**
0932_SW213_250430	SW213	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**1.37**	**1.51**	**1.56**
SW213_181210	SW213	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**20.3**	**23.59**	**24.79**
0932_SW214_241210	SW214	On-base Drain	10 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.211**	**0.297**	**0.314**
0932_SW214_250430	SW214	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**1.61**	**1.75**	**1.79**
0932_QC102_241210	SW214	On-base Drain	10 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	**0.012**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**4.2**	**4.891**	**5.357**
0932_QC202_241210	SW214	On-base Drain	10 Dec 2024	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.10*	*<0.050*	*<0.020*	*<0.050*	*<0.10*	*<0.020*	*<0.50*	**6.3**	-	**7.4**
SW214_181210	SW214	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**8.6**	**10.11**	**10.54**
0932_SW215_241203	SW215	On-base Drain	03 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**57**	**83.95**	**92.612**
0932_QC104_241203	SW215	On-base Drain	03 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**72**	**105.7**	**117.2**
0932_QC204_241203	SW215	On-base Drain	03 Dec 2024	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.10*	*<0.050*	*<0.020*	*<0.050*	*<0.10*	*<0.020*	*<0.50*	**69**	-	**110**
SW215_181213	SW215	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**33**	**42.31**	**46.05**
0932_SW216_241210	SW216	On-base Drain	10 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.001*	*<0.005*	*<0.005*
0932_QC202_250501	SW216	On-base Drain	08 May 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.17**	**0.18**	**0.18**
SW216_181212	SW216	On-base Drain	12 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.18**	**0.19**	**0.19**
0932_QC102_250501	SW216	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.22**	**0.22**	**0.22**
0932_SW216_250401	SW216	On-base Drain	01 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.23**	**0.23**	**0.23**
0932_SW217_250430	SW217	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.50**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**27.0**	**29.3**	**31.6**
SW217_181212	SW217	On-base Drain	12 Dec 2018	*<0.01*	**19**	*<0.01*	*<0.01*	**0.21**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**29.9**	**50.46**	**51.39**
SW218_181212	SW218	On-base Drain	12 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**2.13**	**2.27**	**2.32**
0932_SW219_250430	SW219	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.55**	**0.62**	**0.62**
SW219_181212	SW219	On-base Drain	12 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.38**	**1.49**	**1.52**
SW220_181211	SW220	On-base Drain	11 Dec 2018	*<0.01*	*<0.05*	**0.02**	*<0.01*	**0.13**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**17.6**	**20.24**	**21.04**
0932_SW220_250430	SW220	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.05**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**6.47**	**7.49**	**7.85**
0932_SW220_241204	SW220	On-base Drain	04 Dec 2024	*<0.001*	**0.021**	**0.009**	*<0.001*	**0.073**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**9.6**	**11.12**	**12.004**
SW221_181212	SW221	On-base Drain	12 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.36**	**0.64**	**0.65**
0932_SW222_250430	SW222	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.14**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**14.7**	**17.1**	**18.0**
0937_SW222_250319	SW222	On-base Drain	19 Mar 2025	*<0.01*	*<0.05*	**0.03**	*<0.01*	**0.17**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**20**	**22.22**	**23.44**
SW222_181211	SW222	On-base Drain	11 Dec 2018	*<0.01*	**3.1**	**0.03**	*<0.01*	**0.23**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**36.1**	**46.66**	**48.8**
SW223_181211	SW223	On-base Drain	11 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	**0.23**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**153**	**182.4**	**187.64**
0932_SW223_250430	SW223	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.17**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**24.4**	**30.2**	**31.7**
0937_SW223_250317	SW223	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	**0.05**	*<0.01*	**1.7**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**241**	**263.65**	**278.55**
0932_SW224_250430	SW224	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**5.67**	**6.41**	**6.70**
SW224_181212	SW224	On-base Drain	12 Dec 2018	*<0.01*	**9.5**	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**13.6**	**25.89**	**26.65**

Point Cook ERA

Table 2 - Surface Water Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.005	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.005	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														
Field ID	**Location Code**	**Investigation Area**	**Date**													
0932_SW225_250430	SW225	On-base Drain	30 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**1.59**	**1.85**	**1.90**
0932_SW225_241204	SW225	On-base Drain	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	**0.024**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**5.7**	**6.488**	**6.917**
SW225_181212	SW225	On-base Drain	12 Dec 2018	*<0.01*	**4.6**	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**12.3**	**18.69**	**19.13**
SW232_181210	SW232	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.03**	*<0.05*	*<0.1*
0932_SW232_241203	SW232	On-base Drain	03 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.31**	**0.384**	**0.425**
SW233_181213	SW233	On-base Drain	13 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.14**	**0.14**	**0.14**
0932_SW233_241204	SW233	On-base Drain	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.56**	**0.653**	**0.716**
0932_SW234_250401	SW234	On-base Drain	01 Apr 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.19**	**0.19**	**0.19**
0932_SW234_241204	SW234	On-base Drain	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.175**	**0.24**	**0.257**
0932_QC101_250501	SW234	On-base Drain	01 May 2025	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.21**	**0.21**	**0.21**
SW234_181210	SW234	On-base Drain	10 Dec 2018	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.31**	**0.36**	**0.38**
0932_QC201_250501	SW234	On-base Drain	08 May 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.26**	**0.28**	**0.28**
0932_QC201_250325	SW277	On-base Drain	25 Mar 2025	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.10*	*<0.050*	*<0.020*	*<0.050*	*<0.10*	*<0.020*	*<0.50*	**0.059**	-	**0.059**
0932_SW277_250325	SW277	On-base Drain	25 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.07**	**0.07**	*<0.1*
0937_SW278_250318	SW278	On-base Drain	18 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.42**	**0.44**	**0.44**
0937_SW279_250318	SW279	On-base Drain	18 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	**0.08**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.48**	**1.82**	**1.99**
0932_QC201_250611	SW280	On-base Drain	11 Jun 2025	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.10*	*<0.050*	*<0.020*	*<0.050*	*<0.10*	*<0.020*	*<0.50*	**0.63**	-	**0.63**
0932_QC202_250611	SW280	On-base Drain	16 Jun 2025	*<0.010*	*<0.010*	*<0.020*	*<0.020*	*<0.10*	*<0.050*	*<0.020*	*<0.050*	*<0.10*	*<0.020*	*<0.50*	**1.3**	-	**1.5**
0937_SW281_250319	SW281	On-base Drain	19 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.42**	**1.46**	**1.59**
0937_SW282_02_250317	SW282	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.1**	**0.1**	**0.1**
0937_SW282_01_250317	SW282	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.16**	**0.17**	**0.17**
0937_SW283_02_250317	SW283	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.02**	*<0.05*	*<0.1*
0937_SW283_01_250317	SW283	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.09**	**0.09**	*<0.1*
0937_SW285_02_250317	SW285	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.01*	*<0.05*	*<0.1*
0937_SW285_01_250317	SW285	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.02**	*<0.05*	*<0.1*
0937_SW286_01_250317	SW286	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.01*	*<0.05*	*<0.1*
0937_SW286_02_250317	SW286	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.01*	*<0.05*	*<0.1*
0937_SW287_02_250317	SW287	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**1.44**	**1.47**	**1.62**
0937_SW287_01_250317	SW287	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	**0.17**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**4.45**	**4.48**	**5.19**
0937_SW288_02_250317	SW288	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.02**	*<0.05*	*<0.1*
0937_SW288_01_250317	SW288	On-base Drain	17 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.12**	**0.12**	**0.12**
0937_SW290_250320	SW290	On-base Drain	20 Mar 2025	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**44.5**	**178.37**	**211.91**
0932_SW291_250502	SW291	On-base Drain	02 May 2025	*<0.05*	*<0.05*	**0.31**	*<0.05*	**0.71**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**41.2**	**58.9**	**66.5**
0932_QC102_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.001*	*<0.005*	*<0.005*
0932_QC202_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	*<0.0010*	*<0.00040*	*<0.00040*	*<0.0020*	*<0.010*	*<0.050*	*<0.0020*	*<0.050*	*<0.10*	*<0.0020*	*<0.50*	**0.0051**	-	**0.0091**
0932_SW266_241209	SW266	Port Phillip Bay - Inshore	09 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0043**	*<0.005*	*<0.005*
0932_QC201_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	*<0.0010*	*<0.00040*	*<0.00040*	*<0.0020*	*<0.010*	*<0.050*	*<0.0020*	*<0.050*	*<0.10*	*<0.0020*	*<0.50*	**0.0064**	-	**0.010**
0932_QC101_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0089**	**0.0139**	**0.0139**
0932_SW266_241127	SW266	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0089**	**0.0109**	**0.0109**
0932_QC201_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	*<0.0010*	*<0.00040*	*<0.00040*	*<0.0020*	*<0.010*	*<0.050*	*<0.0020*	*<0.050*	*<0.10*	*<0.0020*	*<0.50*	**0.011**	-	**0.035**
0932_QC101_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0097**	**0.0307**	**0.0317**
0932_SW266_250519	SW266	Port Phillip Bay - Inshore	19 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.014**	**0.034**	**0.037**
0932_SW267_241127	SW267	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.008**	**0.009**	**0.009**
0932_SW267_250519	SW267	Port Phillip Bay - Inshore	19 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.02**	**0.029**	**0.029**
0932_SW268_250519	SW268	Port Phillip Bay - Inshore	19 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0124**	**0.0204**	**0.0204**
0932_SW268_241204	SW268	Port Phillip Bay - Inshore	04 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.072**	**0.083**	**0.087**
0932_SW269_241127	SW269	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.025**	**0.029**	**0.029**
0932_SW269_250520	SW269	Port Phillip Bay - Inshore	20 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.101**	**0.149**	**0.164**
0932_SW270_250520	SW270	Port Phillip Bay - Inshore	20 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0074**	**0.0114**	**0.0114**
0932_SW270_241127	SW270	Port Phillip Bay - Inshore	27 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.017**	**0.019**	**0.019**
0932_SW271_250520	SW271	Port Phillip Bay - Inshore	20 May 2025	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.015**	**0.019**	**0.019**
0932_SW271_241205	SW271	Port Phillip Bay - Inshore	05 Dec 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.024**	**0.028**	**0.029**
0932_SW271_241126	SW271	Port Phillip Bay - Inshore	26 Nov 2024	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.033**	**0.04**	**0.04**

Point Cook ERA

Table 2 - Surface Water Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.005	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.005	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														
Field ID	**Location Code**	**Investigation Area**	**Date**													
0932_SW272_202521	SW272	Port Phillip Bay - Inshore	21 May 2025	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.027**	**0.034**	**0.034**
0932_QC103_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.047**	**0.056**	**0.057**
0932_QC203_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.046**	-	**0.055**
0932_SW272_241126	SW272	Port Phillip Bay - Inshore	26 Nov 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.048**	**0.057**	**0.059**
0932_SW273_241126	SW273	Port Phillip Bay - Inshore	26 Nov 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.05**	**0.058**	**0.062**
0932_SW273_250520	SW273	Port Phillip Bay - Inshore	20 May 2025	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.076**	**0.105**	**0.112**
0932_SW274_241126	SW274	Port Phillip Bay - Inshore	26 Nov 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.056**	**0.068**	**0.068**
0932_SW274_202521	SW274	Port Phillip Bay - Inshore	21 May 2025	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.092**	**0.113**	**0.119**
0932_SW275_241128	SW275	Port Phillip Bay - Inshore	28 Nov 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.085**	**0.108**	**0.116**
0932_SW275_250521	SW275	Port Phillip Bay - Inshore	21 May 2025	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.146**	**0.175**	**0.185**
0932_QC201_241128	SW275	Port Phillip Bay - Inshore	28 Nov 2024	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.26**	-	**0.32**
0932_SW001_241203	SW001	RAAF Lake	03 Dec 2024	<0.001	<0.005	**0.001**	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**46**	**122.601**	**137.098**
0932_SW001_201109	SW001	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**41.2**	**97.4**	**106**
0932_QC203_241203	SW002	RAAF Lake	03 Dec 2024	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**39**	-	**130**
0932_SW002_241203	SW002	RAAF Lake	03 Dec 2024	<0.001	**0.014**	**0.007**	<0.001	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**240**	**338.521**	**366.648**
0932_QC103_241203	SW002	RAAF Lake	03 Dec 2024	<0.001	<0.07	<0.07	<0.001	**0.007**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**66**	**134.5**	**149.307**
0932_SW002_201109	SW002	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27.9**	**80.8**	**88.4**
0932_SW003_241203	SW003	RAAF Lake	03 Dec 2024	<0.001	**0.039**	**0.007**	<0.001	**0.029**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**460**	**575.546**	**612.324**
0932_QC108_201109	SW003	RAAF Lake	10 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27.7**	**83.9**	**91.6**
0932_SW003_201109	SW003	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28.0**	**80.8**	**89.1**
0932_QC208_201109	SW003	RAAF Lake	09 Nov 2020	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**25.6**	**86.9**	**97.28**
0932_SW004_201109	SW004	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28.3**	**83.0**	**91.3**
0932_SW004_241203	SW004	RAAF Lake	03 Dec 2024	<0.001	**0.011**	**0.002**	<0.001	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**182**	**272.713**	**295.181**
0932_SW005_201109	SW005	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**23.6**	**79.4**	**87.3**
0932_SW005_241203	SW005	RAAF Lake	03 Dec 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**51.1**	**133.9**	**149.624**
0932_SW006_201109	SW006	RAAF Lake	09 Nov 2020	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**26.6**	**83.1**	**90.8**
0932_SW006_241203	SW006	RAAF Lake	03 Dec 2024	<0.001	**0.015**	**0.003**	<0.001	**0.006**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**237**	**373.118**	**406.366**
SW227_181213	SW227	RAAF Lake	13 Dec 2018	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**27.2**	**31.05**	**32.92**
0932_SW227_241202	SW227	RAAF Lake	02 Dec 2024	<0.001	<0.005	<0.07	<0.001	**0.010**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**88**	**158**	**173.081**
SW228_181213	SW228	RAAF Lake	13 Dec 2018	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.39**	**1.53**	**1.58**
0932_SW228_241202	SW228	RAAF Lake	02 Dec 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**29.3**	**101.6**	**116.35**
0932_SW229_241203	SW229	RAAF Lake	03 Dec 2024	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**33.1**	**111.83**	**126.966**
SW229_181213	SW229	RAAF Lake	13 Dec 2018	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**14.3**	**53.75**	**59.56**
0932_SW230_241203	SW230	RAAF Lake	03 Dec 2024	<0.001	**0.007**	**0.001**	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**99**	**193.408**	**213.532**
SW230_181213	SW230	RAAF Lake	13 Dec 2018	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**13.3**	**50.55**	**55.49**

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Freshwater 90%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW167_200922*	MW167	Shallow	22 Sep 2020	Off-base (East)	**0.59**	**0.96**	**16.7**	**1.67**	**27.6**	-	*<0.02*	**0.1**	**0.24**	**2.07**	**0.19**	**1.42**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW150_S_200929	MW150	Shallow	29 Sep 2020	Off-base (East)	**5.1**	**8.03**	**50.8**	**2.35**	**33.7**	-	*<0.02*	**1.1**	**2.57**	**16.8**	**1.54**	**4.38**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW152_200929*	MW152	Shallow	29 Sep 2020	Off-base (East)	**14**	**18**	**170**	**3.9**	**200**	*<0.1*	*<0.1*	**1.9**	**2.8**	**36**	**3.1**	**16**	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	-
0932_MW152_S_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	**13.3**	**18.7**	**102**	**3.42**	**72.2**	-	*<0.02*	**0.5**	**4.04**	**31.6**	**3.98**	**12.2**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC102_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	**11.7**	**18**	**108**	**3.72**	**78.7**	-	*<0.02*	**1.1**	**3.98**	**31.3**	**2.97**	**12.3**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW166_200929*	MW166	Shallow	29 Sep 2020	Off-base (East)	**4.71**	**6.77**	**55.9**	**2.43**	**36.7**	-	*<0.02*	**0.4**	**1.94**	**14.2**	**1.42**	**4.94**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW167_200929*	MW167	Shallow	29 Sep 2020	Off-base (East)	**0.64**	**1.24**	**16.1**	**2.09**	**31.9**	-	*<0.02*	**0.1**	**0.28**	**2.27**	**0.21**	**1.65**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW168_200929*	MW168	Shallow	29 Sep 2020	Off-base (East)	**7.33**	**13.3**	**111**	**6.75**	**59.8**	-	*<0.02*	**1.1**	**3.87**	**33.8**	**2.95**	**14.1**	**0.05**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW169_200929*	MW169	Shallow	29 Sep 2020	Off-base (East)	**2.04**	**3.14**	**40**	**2.85**	**38**	-	*<0.02*	**0.3**	**0.86**	**6.67**	**0.6**	**4.18**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW150_210526*	MW150	Shallow	26 May 2021	Off-base (East)	**4.29**	**5.77**	**53**	**2.04**	**55.5**	-	*<0.04*	**0.3**	**1.82**	**12.6**	**0.95**	**3.73**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_QC106_210526	MW152	Shallow	26 May 2021	Off-base (East)	**10.7**	**14.8**	**162**	**5.11**	**129**	-	*<0.04*	**0.5**	**3.19**	**29.6**	**4.02**	**17**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW152_210526*	MW152	Shallow	26 May 2021	Off-base (East)	**10**	**12**	**160**	**3.9**	**130**	*<0.01*	*<0.01*	**1.6**	**4**	**30**	**4.2**	**16**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW152_210526	MW152	Shallow	26 May 2021	Off-base (East)	**9.71**	**18.4**	**161**	**6.83**	**150**	-	*<0.04*	**0.8**	**3.73**	**30**	**3.87**	**16.6**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW166_210526*	MW166	Shallow	26 May 2021	Off-base (East)	**2.48**	**3.57**	**31.5**	**1.15**	**19.2**	-	*<0.04*	**0.2**	**0.97**	**7.48**	**0.59**	**2.33**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW167_210526*	MW167	Shallow	26 May 2021	Off-base (East)	**1.3**	**1.88**	**21.4**	**1.32**	**34.1**	-	*<0.04*	*<0.2*	**0.49**	**4.1**	**0.33**	**1.98**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW168_210526*	MW168	Shallow	26 May 2021	Off-base (East)	**6.1**	**12.8**	**131**	**7.16**	**88.9**	-	*<0.04*	**0.5**	**2.82**	**28**	**2.2**	**11.9**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW169_210526*	MW169	Shallow	26 May 2021	Off-base (East)	**1.4**	**2**	**31**	**1.2**	**23**	*<0.01*	*<0.01*	**0.32**	**0.68**	**5.9**	**0.45**	**2.4**	**0.02**	*<0.01*	*<0.01*	**1.5**	*<0.01*	*<0.01*	-
0932_MW169_210526	MW169	Shallow	26 May 2021	Off-base (East)	**1.74**	**2.25**	**27.9**	**1.36**	**23.4**	-	*<0.04*	*<0.2*	**0.63**	**5.32**	**0.36**	**2.64**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_QC102_210526	MW169	Shallow	26 May 2021	Off-base (East)	**1.78**	**2.04**	**31.1**	**1.34**	**24.3**	-	*<0.04*	*<0.2*	**0.51**	**5.37**	**0.36**	**2.36**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW150_210729*	MW150	Shallow	29 Jul 2021	Off-base (East)	**0.32**	**0.37**	**4.98**	**0.58**	**167**	-	*<0.04*	*<0.2*	**0.19**	**1.28**	**0.09**	**0.5**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW152_210729*	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.6**	**12**	**140**	**8.2**	**130**	*<0.01*	*<0.01*	**1.3**	**3.3**	**24**	**3.4**	**16**	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC102_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.54**	**9.98**	**150**	**6.74**	**142**	-	*<0.04*	**0.7**	**3.41**	**27.9**	**3.35**	**15.9**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW152_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.38**	**9.98**	**150**	**7.93**	**154**	-	*<0.03*	**0.7**	**3.35**	**28.9**	**3.13**	**16.5**	*<0.03*	*<0.03*	*<0.03*	*<0.03*	*<0.03*	*<0.09*	-
0932_MW166_210729*	MW166	Shallow	29 Jul 2021	Off-base (East)	**1.78**	**1.56**	**21.9**	**0.87**	**12.3**	-	*<0.02*	**0.4**	**0.85**	**5.23**	**0.45**	**1.76**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW167_210729*	MW167	Shallow	29 Jul 2021	Off-base (East)	**1.17**	**0.71**	**20.8**	**2.17**	**29.6**	-	*<0.02*	**0.3**	**0.52**	**3.73**	**0.3**	**1.97**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW168_210729*	MW168	Shallow	29 Jul 2021	Off-base (East)	**4.63**	**6.46**	**143**	**6.61**	**78.6**	-	*<0.04*	**0.6**	**2.46**	**23.7**	**1.95**	**12.2**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW169_210729*	MW169	Shallow	29 Jul 2021	Off-base (East)	**0.55**	**0.79**	**17.8**	**1.2**	**18.5**	-	*<0.02*	**0.2**	**0.34**	**2.62**	**0.19**	**1.56**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC105_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**4.66**	**9.63**	**87.5**	**4.52**	**48.4**	-	*<0.02*	**0.7**	**2.71**	**20.1**	**2.64**	**12.8**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW152_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**4.76**	**8.92**	**85**	**4.34**	**49.6**	-	*<0.02*	**0.7**	**2.71**	**19.6**	**2.6**	**12.4**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC205_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**5.1**	**7**	**100**	**3.2**	**69**	*<0.2*	*<0.2*	**1.2**	**2.7**	**22**	**2.7**	**15**	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW166_230404	MW166	Shallow	04 Apr 2023	Off-base (East)	**1.8**	**2.57**	**26**	**1.21**	**24**	-	*<0.02*	**0.2**	**0.76**	**5.66**	**0.52**	**2.26**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW167_230404	MW167	Shallow	04 Apr 2023	Off-base (East)	**1.1**	**1.47**	**17.6**	**1.25**	**25**	-	*<0.02*	**0.2**	**0.44**	**3.44**	**0.28**	**1.54**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW168_230404	MW168	Shallow	04 Apr 2023	Off-base (East)	**0.93**	**1.41**	**19.9**	**1.79**	**24.5**	-	*<0.02*	**0.2**	**0.51**	**4.08**	**0.32**	**1.86**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW169_230404	MW169	Shallow	04 Apr 2023	Off-base (East)	**0.36**	**0.53**	**7.14**	**0.86**	**16**	-	*<0.02*	*<0.1*	**0.16**	**1.24**	**0.09**	**0.71**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	**1.8**	**2.1**	**20**	**0.63**	**14**	*<0.03*	*<0.001*	**0.28**	**0.57**	**4.2**	**0.43**	**1.6**	**0.007**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	**1.6**	**2**	**26**	**1.2**	**24**	*<0.03*	*<0.001*	**0.31**	**0.57**	**4.1**	**0.42**	**1.8**	**0.012**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	**0.15**	**0.21**	**9.5**	**2.8**	**38**	*<0.07*	*<0.001*	**0.076**	**0.17**	**0.77**	**0.082**	**1.6**	**0.07**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_250506	MW166	Shallow	06 May 2025	Off-base (East)	**0.78**	**0.82**	**7.5**	**0.22**	**5.6**	*<0.02*	*<0.02*	**0.13**	**0.36**	**2**	**0.17**	**0.75**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	-
0932_QC101_250506	MW166	Shallow	06 May 2025	Off-base (East)	**0.96**	**1.39**	**9.8**	**0.47**	**6.09**	*<0.02*	*<0.02*	**0.2**	**0.44**	**2.57**	**0.23**	**0.91**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW166_250506	MW166	Shallow	06 May 2025	Off-base (East)	**1.18**	**1.9**	**12.5**	**0.65**	**7.86**	*<0.02*	*<0.02*	**0.3**	**0.5**	**3.25**	**0.32**	**1.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW167_250506	MW167	Shallow	06 May 2025	Off-base (East)	**1.25**	**2.27**	**18.3**	**1.62**	**21.9**	*<0.02*	*<0.02*	**0.3**	**0.63**	**4.13**	**0.36**	**1.82**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW168_250506	MW168	Shallow	06 May 2025	Off-base (East)	*<0.02*	*<0.02*	**0.14**	**0.14**	**18.1**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.02**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
MW009_180405	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	**0.03**	**0.03**	**0.12**	*<0.01*	**0.08**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW026_180406	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	**0.02**	*<0.01*	**0.05**	*<0.01*	**0.07**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	**0.006**	**0.003**	**0.012**	*<0.001*	**0.01**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.003**	**0.001**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW026_250502	MW026	Shallow	02 May 2025	On-base Other (Central west)	*<0.02*	*<0.02*	**0.01**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
MW056_180413	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	**0.02**	**0.02**	**0.21**	*<0.01*	**0.15**	-	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW110_181218	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	**3**	**3.8**	**15**	**0.07**	**0.25**	-	*<0.01*	**0.63**	**1.6**	**11**	**0.56**	**0.49**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW110_200930*	MW110	Shallow	30 Sep 2020	On-base Other (Eastern boundary)	**13.1**	**24.7**	**267**	**6.62**	**115**	-	*<0.04*	**0.9**	**9.27**	**71.6**	**6.84**	**27.4**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW110_210524*	MW110	Shallow	24 May 2021	On-base Other (Eastern boundary)	**14.3**	**31.4**	**246**	**9.06**	**178**	-	*<0.04*	**3.7**	**9.61**	**71.3**	**7.16**	**28.6**	**0.07**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW110_210730*	MW110	Shallow	30 Jul 2021	On-base Other (Eastern boundary)	**10.8**	**14.4**	**180**	**5.94**	**141**	-	*<0.04*	**0.8**	**6.31**	**50.1**	**4.04**	**17.5**	**0.08**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW110_230330	MW110	Shallow	30 Mar 2023	On-base Other (Eastern boundary)	**4.33**	**8.55**	**76.4**	**5.41**	**69**	-	*<0.02*	**0.7**	**3.14**	**19.3**	**2.08**	**9.23**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	**2.3**	**2.5**	**13**	**0.1**	**0.16**	*<0.001*	*<0.001*	**0.47**	**0.95**	**5.2**	**0.43**	**0.44**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW110_250512	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	**2.16**	**1.73**	**10.3**	**0.11**	**0.21**	*<0.02*	*<0.02*	**0.6**	**1.19**	**6.26**	**0.32**	**0.34**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW043_D_200929	MW043	Deep	29 Sep 2020	On-base Other (North of SA01)	**2.4**	**2.73**	**14.5**	**0.1**	**0.17**	-	*<0.02*	**0.3**	**0.48**	**3.19**	**0.31**	**0.23**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW043_210525*	MW043	Deep	25 May 2021	On-base Other (North of SA01)	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW043_210730*	MW043	Deep	30 Jul 2021	On-base Other (North of SA01)	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW043_230330	MW043	Deep	30 Mar 2023	On-base Other (North of SA01)	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.01*	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW043_250516	MW043	Deep	16 May 2025	On-base Other (North of SA01)	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW044_I_200929	MW044	Intermediate	29 Sep 2020	On-base Other (North of SA01)	**2.23**	**2.62**	**15.6**	**0.1**	**0.2**	-	*<0.02*	**0.3**	**0.45**	**3.01**	**0.29**	**0.22**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW044_210525*	MW044	Intermediate	25 May 2021	On-base Other (North of SA01)	**2.38**	**2.99**	**14.8**	**0.1**	**0.16**	-	*<0.02*	**0.3**	**0.45**	**3.35**	**0.32**	**0.35**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW044_210730*	MW044	Intermediate	30 Jul 2021	On-base Other (North of SA01)	**2.32**	**2.01**	**18.9**	**0.16**	**0.26**	-	*<0.02*	**0.3**	**0.46**	**3.32**	**0.3**	**0.45**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW044_230330	MW044	Intermediate	30 Mar 2023	On-base Other (North of SA01)	**1.71**	**2.24**	**14.4**	**0.13**	**0.25**	-	*<0.02*	**0.1**	**0.39**	**2.18**	**0.23**	**0.34**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	**1.5**	**2.3**	**9.4**	**0.1**	**0.14**	*<0.001*	*<0.001*	**0.095**	**0.26**	**1.7**	**0.16**	**0.2**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	
0932_QC101_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.37**	**1.18**	**7.83**	**0.08**	**0.18**	*<0.02*	*<0.02*	**0.2**	**0.29**	**1.67**	**0.13**	**0.21**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW044_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.32**	**1.82**	**9.3**	**0.08**	**0.21**	*<0.02*	*<0.02*	**0.2**	**0.27**	**1.7**	**0.16**	**0.22**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC201_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.7**	**2**	**10**	**0.07**	**0.23**	*<0.01*	*<0.01*	**0.2**	**0.24**	**1.9**	**0.2**	**0.31**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW046_160517*	MW046	Shallow	17 May 2016	On-base Other (North of SA01)	**0.05**	-	*<0.01*	-	***<0.01***	-	*<0.01*	*<0.05*	**0.03**	**0.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW038_180413	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	**1.5**	**1.2**	**7.9**	**0.08**	**0.96**	-	*<0.01*	**0.32**	**0.54**	**3.5**	**0.2**	**0.21**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW039_180413	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	**1.5**	**1.2**	**3.9**	**0.04**	**0.52**	-	*<0.01*	**0.4**	**0.75**	**4.2**	**0.23**	**0.14**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW040_180413	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	**3.1**	**3.8**	**41**	**0.83**	**10**	-	*<0.01*	**0.41**	**0.87**	**7.3**	**0.63**	**1.7**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW041_180413	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.25**	**0.08**	**0.39**	**0.01**	**1.2**	-	*<0.01*	**0.08**	**0.13**	**0.52**	**0.03**	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW042_180413	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.1**	**0.06**	**0.38**	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	**0.03**	**0.12**	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW045_180413	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.9**	**0.92**	**11**	**0.57**	**29**	-	*<0.01*	**0.24**	**0.4**	**2.6**	**0.25**	**0.77**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW046_180413	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.91**	**0.82**	**5.8**	**0.07**	**0.8**	-	*<0.01*	**0.15**	**0.28**	**1.7**	**0.13**	**0.18**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW039_S_200921	MW039	Shallow	21 Sep 2020	On-base Other (North of SA01)	**2.5**	**3.49**	**18.7**	**0.22**	**0.65**	-	*<0.02*	**0.5**	**1.18**	**8.56**	**0.6**	**0.53**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW039_S_200929	MW039	Shallow	29 Sep 2020	On-base Other (North of SA01)	**1.79**	**2.54**	**11.4**	**0.13**	**0.56**	-	*<0.02*	**0.4**	**0.83**	**5.43**	**0.5**	**0.35**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW040_S_200929	MW040	Shallow	29 Sep 2020	On-base Other (North of SA01)	**4.52**	**6.34**	**59.6**	**1.41**	**10.6**	-	*<0.02*	**0.6**	**1.53**	**12.1**	**1.32**	**2.97**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW041_200929*	MW041	Shallow	29 Sep 2020	On-base Other (North of SA01)	**4.27**	**5.7**	**28.1**	**0.74**	**10.4**	-	*<0.02*	**1.1**	**2.34**	**13.7**	**1.11**	**1.65**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW042_200929*	MW042	Shallow	29 Sep 2020	On-base Other (North of SA01)	**1.46**	**1.6**	**8.47**	**0.06**	**0.21**	-	*<0.02*	**0.1**	**0.2**	**1.58**	**0.16**	**0.22**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW045_200929*	MW045	Shallow	29 Sep 2020	On-base Other (North of SA01)	**0.47**	**0.54**	**5.96**	**0.74**	**27.5**	-	*<0.02*	**0.2**	**0.22**	**1.32**	**0.13**	**0.49**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW039_210525*	MW039	Shallow	25 May 2021	On-base Other (North of SA01)	**2.38**	**2.98**	**12.2**	**0.14**	**0.42**	-	*<0.02*	**0.3**	**0.9**	**6.47**	**0.51**	**0.43**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW040_210525*	MW040	Shallow	25 May 2021	On-base Other (North of SA01)	**2.84**	**3.64**	**36.4**	**0.55**	**4.62**	-	*<0.02*	**0.4**	**0.62**	**6.82**	**0.6**	**1.24**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW041_210525*	MW041	Shallow	25 May 2021	On-base Other (North of SA01)	**0.22**	**0.1**	**0.26**	*<0.02*	**0.43**	-	*<0.02*	**0.1**	**0.13**	**0.47**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW042_210525*	MW042	Shallow	25 May 2021	On-base Other (North of SA01)	**0.78**	**1.04**	**4.99**	**0.06**	**0.12**	-	*<0.02*	**0.1**	**0.13**	**0.95**	**0.09**	**0.13**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW045_210525*	MW045	Shallow	25 May 2021	On-base Other (North of SA01)	**0.72**	**1.93**	**11.5**	**0.87**	**22.8**	-	*<0.02*	**0.4**	**0.37**	**2.21**	**0.23**	**0.62**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW039_210730*	MW039	Shallow	30 Jul 2021	On-base Other (North of SA01)	**2.13**	**1.32**	**13**	**0.18**	**0.59**	-	*<0.02*	**0.5**	**0.89**	**6.35**	**0.44**	**0.41**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW040_210730*	MW040	Shallow	30 Jul 2021	On-base Other (North of SA01)	**4.24**	**3.42**	**68.9**	**1.21**	**11.1**	-	*<0.04*	*<0.2*	**1.4**	**11.8**	**0.93**	**2.87**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-

Table 3 – Groundwater Analytical Results V1

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW041_210730*	MW041	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.22**	**0.06**	**0.17**	*<0.02*	**0.21**	-	*<0.02*	*<0.1*	**0.11**	**0.44**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW042_210730*	MW042	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.98**	**0.96**	**8.62**	**0.09**	**0.22**	-	*<0.02*	**0.1**	**0.19**	**1.42**	**0.12**	**0.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW045_210730*	MW045	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.58**	**0.6**	**9.51**	**0.62**	**26.9**	-	*<0.04*	*<0.2*	**0.28**	**1.63**	**0.15**	**0.58**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW039_230330	MW039	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.9**	**1.76**	**9.65**	**0.14**	**1.01**	-	*<0.02*	**0.2**	**0.52**	**2.91**	**0.28**	**0.37**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW040_230330	MW040	Shallow	30 Mar 2023	On-base Other (North of SA01)	**2.69**	**3.9**	**38**	**0.71**	**10.4**	-	*<0.02*	**0.1**	**0.81**	**5.41**	**0.63**	**1.87**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW041_230330	MW041	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.31**	**0.1**	**0.85**	**0.05**	**1.75**	-	*<0.02*	*<0.1*	**0.12**	**0.72**	**0.03**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW042_230330	MW042	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.12**	**0.13**	**0.53**	*<0.02*	**0.01**	-	*<0.02*	*<0.1*	**0.02**	**0.14**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW045_230330	MW045	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.94**	**1.87**	**21.5**	**0.85**	**20.9**	-	*<0.02*	**0.2**	**0.48**	**2.98**	**0.36**	**0.81**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	*<0.001*	*<0.001*	*<0.001*	*<0.001*	***<0.001***	*<0.001*	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	**2.1**	**2.2**	**7**	**0.069**	**0.35**	*<0.001*	*<0.001*	**0.44**	**0.88**	**5**	**0.25**	**0.19**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	**9.1**	**19**	**34**	**0.69**	**2.9**	*<0.001*	*<0.001*	**2**	**5**	**17**	**2.4**	**2.2**	*<0.015*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	**0.3**	**0.11**	**0.19**	**0.007**	**0.46**	**0.001**	*<0.001*	**0.07**	**0.14**	**0.55**	**0.016**	**0.01**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	*<0.00040*	*<0.0010*	**0.00033**	*<0.0010*	**0.00089**		*<0.0020*	*<0.0020*	*<0.0020*	*<0.00040*	*<0.00040*	*<0.00020*	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_QC101_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	**0.045**	**0.03**	**0.091**	**0.002**	**0.042**	*<0.001*	*<0.001*	*<0.005*	**0.008**	**0.03**	**0.002**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	**1**	**1.2**	**15**	**0.83**	**33**	**0.014**	*<0.001*	**0.21**	**0.35**	**2.4**	**0.28**	**0.82**	**0.008**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW038_250512	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	**1.05**	**0.72**	**4.27**	**0.1**	**0.63**	*<0.02*	*<0.02*	**0.3**	**0.52**	**2.53**	**0.12**	**0.14**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW039_250512	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	**3.7**	**4.33**	**25.1**	**0.68**	**3.05**	*<0.02*	*<0.02*	**1.4**	**2.75**	**15.1**	**0.9**	**1.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW041_250512	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	**0.25**	**0.1**	**0.19**	*<0.02*	**0.35**	*<0.02*	*<0.02*	*<0.1*	**0.13**	**0.5**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW042_250512	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	**0.3**	**0.23**	**1.43**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	**0.06**	**0.35**	**0.03**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW045_250512	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	**0.8**	**0.84**	**10.8**	**0.64**	**21.2**	*<0.02*	*<0.02*	**0.2**	**0.37**	**2.2**	**0.18**	**0.69**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
MW006_180406	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	*<0.01*	*<0.01*	**0.01**	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW001_180409	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	*<0.01*	*<0.01*	**0.06**	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW002_180409	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	**0.01**	**0.02**	**0.37**	**0.02**	**1.3**	-	*<0.01*	**0.11**	**0.02**	**0.05**	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW005_180411	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	**1**	**1.2**	**7.7**	**0.17**	**1.8**	-	*<0.01*	**0.16**	**0.48**	**2.6**	**0.17**	**0.2**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	**0.016**	**0.012**	**0.093**	**0.002**	**0.06**	*<0.001*	*<0.001*	**0.02**	**0.004**	**0.011**	**0.003**	**0.007**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	**0.78**	**1.4**	**12**	**0.21**	**5.2**	*<0.0125*	*<0.001*	**0.047**	**0.22**	**1.4**	**0.13**	**0.19**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW002_250505	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	*<0.02*	*<0.02*	**0.05**	*<0.02*	**0.07**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW005_250506	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	**0.35**	**0.42**	**3.68**	**0.12**	**3.36**	*<0.02*	*<0.02*	*<0.1*	**0.1**	**0.54**	**0.05**	**0.1**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW027_160518*	MW027	Shallow	18 May 2016	On-base Other (North of SA05/SA06)	*<0.01*	-	*<0.01*	-	**0.25**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW027_180518	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	*<0.01*	*<0.01*	**0.01**	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.008**	**0.004**	**0.02**	*<0.001*	**0.041**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.005**	**0.002**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC102_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.008**	**0.004**	**0.02**	*<0.001*	**0.044**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.006**	*<0.001*	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC202_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.01**	**0.005**	**0.027**	*<0.0010*	**0.047**	-	*<0.0020*	*<0.020*	*<0.0040*	**0.0055**	**0.0016**	**0.0042**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_MW027_250502	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	*<0.02*	*<0.02*	**0.02**	*<0.02*	***<0.01***	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW100_200518*	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	**0.01**	**0.01**	**0.1**	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
QC101_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	*<0.02*	**0.03**	**0.15**	*<0.02*	**0.03**	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
MW100_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	**0.02**	**0.03**	**0.17**	*<0.02*	**0.04**	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
MW108_181218	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	**0.01**	*<0.01*	**0.05**	*<0.01*	**0.01**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW030_180518	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	*<0.01*	*<0.01*	*<0.01*	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW063_180518	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	*<0.01*	*<0.01*	*<0.01*	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW101_200518*	MW101	Shallow	18 May 2020	On-base Other (Northwest of SA08)	*<0.02*	*<0.02*	*<0.02*	*<0.02*	***<0.01***	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
MW107_181218	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	**1.4**	**2.2**	**20**	**0.8**	**24**	-	*<0.01*	**0.34**	**0.77**	**4.8**	**0.49**	**5.1**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	**2.3**	**2.7**	**24**	**0.74**	**10**	*<0.02*	*<0.001*	**0.68**	**0.89**	**5.3**	**0.51**	**4.4**	**0.012**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW107_250506	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	**2.81**	**4.34**	**26**	**1.21**	**8.61**	*<0.02*	*<0.02*	**0.8**	**1.34**	**7**	**0.69**	**5.68**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW049_160517*	MW049	Shallow	17 May 2016	On-base Other (South of SA07)	**0.02**	-	**0.15**	-	**0.03**	-	<0.01	<0.05	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW049_180412	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	**0.02**	**0.02**	**0.17**	<0.01	**0.08**	-	<0.01	<0.05	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC217_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.02	<0.02	**0.23**	<0.02	**0.16**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
MW109_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	**0.01**	**0.01**	**0.23**	<0.01	**0.2**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC116_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	**0.01**	**0.01**	**0.24**	<0.01	**0.21**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW106_181219	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	**20**	**20**	**160**	**1.2**	**5**	-	<0.01	**8.5**	**24**	**190**	**18**	**40**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	**100**	**120**	**1,500**	**11**	**37**	<0.15	<0.15	**23**	**84**	**540**	**110**	**500**	**0.97**	<0.15	<0.15	<0.001	<0.001	<0.001	<0.001	-
0932_MW106_250506	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	**65.3**	**150**	**1,090**	**24.3**	**26.8**	<0.04	<0.04	**30.8**	**74.3**	**534**	**84**	**400**	**0.84**	<0.04	<0.04	<0.04	<0.04	<0.09	<0.09	
MW112_181219	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	**0.06**	**0.06**	**0.47**	<0.01	**0.15**	-	<0.01	<0.05	**0.02**	**0.16**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	**0.01**	**0.006**	**0.042**	**0.002**	**0.066**	<0.001	<0.001	**0.006**	**0.003**	**0.004**	**0.003**	**0.007**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW112_250505	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	<0.02	<0.02	**0.03**	<0.02	**0.05**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW025_180413	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	**0.93**	**0.9**	**7.8**	**0.15**	**4.8**	-	<0.01	**0.14**	**0.3**	**2.2**	**0.16**	**0.31**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	**0.077**	**0.024**	**0.086**	**0.002**	**0.032**	<0.001	<0.001	**0.026**	**0.039**	**0.16**	**0.009**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
0932_MW025_250512	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	**0.08**	**0.02**	**0.09**	<0.02	**0.02**	<0.02	<0.02	<0.1	**0.04**	**0.18**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW051_180410	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	**0.14**	**0.14**	**1.7**	**0.05**	**2.3**	-	<0.01	**0.09**	**0.11**	**0.26**	**0.07**	**0.07**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW052_180412	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.5**	**0.02**	**0.18**	-	<0.01	<0.05	**0.01**	**0.06**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW105_181218	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	**0.55**	**0.41**	**4.6**	**0.25**	**2.5**	-	<0.01	**0.13**	**0.18**	**1.9**	**0.07**	**0.15**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW113_181218	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	**0.02**	**0.02**	**0.15**	<0.01	**0.05**	-	<0.01	<0.05	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	**1.6**	**1.8**	**13**	**0.31**	**3.3**	**0.005**	<0.001	**0.38**	**0.58**	**2.5**	**0.31**	**0.48**	**0.005**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW105_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.65**	**2.16**	**11.4**	**0.45**	**3.25**	<0.02	<0.02	**0.5**	**0.68**	**2.91**	**0.27**	**0.45**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	
0932_QC201_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.6**	**1.7**	**13**	**0.28**	**3.5**	**0.007**	<0.001	**0.26**	**0.61**	**2.5**	**0.3**	**0.66**	**0.005**	<0.001	<0.001	<0.001	<0.001	<0.01	-	
0932_QC101_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.62**	**2.21**	**12.5**	**0.48**	**3.5**	<0.02	<0.02	**0.5**	**0.66**	**3.03**	**0.28**	**0.45**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	
0932_MW216_250505	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	**0.06**	**0.07**	**0.52**	<0.02	**0.82**	<0.02	<0.02	<0.1	**0.02**	**0.11**	<0.02	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW215_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.02**	**0.19**	<0.02	**0.08**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC101_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.19**	<0.02	**0.09**	<0.02	<0.02	<0.1	<0.02	**0.02**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.26**	<0.01	**0.11**	<0.01	<0.01	<0.05	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW037_180412	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	**0.93**	**0.84**	**8.3**	**0.29**	**24**	-	<0.01	**0.21**	**0.29**	**1.6**	**0.13**	**0.29**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW047_180412	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	**1.3**	**1.2**	**12**	**0.42**	**4.3**	-	<0.01	**0.38**	**0.49**	**2.5**	**0.22**	**0.53**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	**0.41**	**0.5**	**3.8**	**0.087**	**3.7**	<0.001	<0.001	**0.075**	**0.076**	**0.49**	**0.049**	**0.069**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW047_250506	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	**0.37**	**0.43**	**3.51**	**0.1**	**3.02**	<0.02	<0.02	<0.1	**0.1**	**0.58**	**0.03**	**0.07**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW020_180410	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	<0.01	**0.01**	**0.25**	**0.01**	**1**	-	<0.01	<0.05	<0.01	**0.03**	<0.01	**0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	**0.018**	**0.033**	**0.53**	**0.021**	**1.4**	**0.004**	**0.003**	**0.033**	**0.012**	**0.059**	**0.011**	**0.083**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_QC101_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.02	<0.02	**0.13**	<0.02	**0.82**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW020_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.02	<0.02	**0.12**	<0.02	**0.84**	<0.02	<0.02	<0.1	<0.02	**0.02**	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.01	<0.01	**0.15**	**0.01**	**1.2**	<0.01	<0.01	<0.05	**0.02**	**0.02**	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW013_180406	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	<0.01	<0.01	<0.01	<0.01	**0.04**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	**0.003**	**0.003**	**0.033**	<0.001	**0.002**	<0.001	<0.001	<0.005	**0.001**	**0.011**	**0.001**	**0.008**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.02	<0.02	<0.01	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	**0.002**	<0.002	**0.007**	<0.002	**0.008**		<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW189_200930*	MW189	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_200930*	MW190	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_200930*	MW191	Deep	30 Sep 2020	SA01	**0.22**	**0.2**	**0.74**	<0.02	**0.26**	-	<0.02	<0.1	**0.07**	**0.39**	**0.04**	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_D_200930	MW194	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC105_200930	MW194	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																		
0932_MW194_200930*	MW194	Deep	30 Sep 2020	SA01	<0.01	<0.01	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_200930*	MW195	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_201001*	MW193	Deep	01 Oct 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_201001*	MW196	Deep	01 Oct 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_210524*	MW189	Deep	24 May 2021	SA01	**0.07**	**0.02**	**0.45**	**0.05**	**1.48**	-	<0.02	<0.1	**0.03**	**0.16**	<0.02	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_210524*	MW190	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_210524*	MW191	Deep	24 May 2021	SA01	**0.21**	**0.11**	**0.72**	<0.02	**0.26**	-	<0.02	<0.1	**0.08**	**0.45**	**0.04**	**0.13**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW195_210524*	MW195	Deep	24 May 2021	SA01	<0.01	<0.01	**0.01**	<0.01	***<0.01***	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_210524	MW195	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC101_210524	MW195	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_210525*	MW193	Deep	25 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_210525*	MW196	Deep	25 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_210526	MW194	Deep	26 May 2021	SA01	<0.02	<0.02	**0.02**	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW195_210728*	MW195	Deep	28 Jul 2021	SA01	<0.02	<0.02	**0.03**	<0.02	**0.01**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_210729*	MW191	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_210729*	MW194	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_210729*	MW196	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_210730*	MW189	Deep	30 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_210730*	MW190	Deep	30 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_210803*	MW193	Deep	03 Aug 2021	SA01	<0.01	<0.01	<0.01	<0.01	***<0.01***	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW193_210803	MW193	Deep	03 Aug 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC100_230328	MW194	Deep	28 Mar 2023	SA01	**0.04**	**0.03**	**0.13**	<0.02	**0.06**	-	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_230328	MW194	Deep	28 Mar 2023	SA01	**0.08**	**0.07**	**0.24**	<0.02	**0.08**	-	<0.02	<0.1	**0.02**	**0.12**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC200_230328	MW194	Deep	28 Mar 2023	SA01	**0.04**	**0.03**	**0.11**	<0.01	**0.09**	<0.01	<0.01	<0.05	**0.01**	**0.06**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW196_230328	MW196	Deep	28 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_230329	MW193	Deep	29 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC102_230329	MW193	Deep	29 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC202_230329	MW193	Deep	29 Mar 2023	SA01	<0.01	<0.01	**0.02**	<0.01	**0.02**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_230329	MW195	Deep	29 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_230330	MW189	Deep	30 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	**0.01**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_230330	MW190	Deep	30 Mar 2023	SA01	<0.02	<0.02	**0.02**	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_230330	MW191	Deep	30 Mar 2023	SA01	<0.02	<0.02	**0.14**	<0.02	**0.03**	-	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_250516	MW190	Deep	16 May 2025	SA01	<0.02	<0.02	**0.03**	<0.02	**0.04**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW193_250516	MW193	Deep	16 May 2025	SA01	<0.02	<0.02	<0.01	<0.02	**0.01**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW194_250516	MW194	Deep	16 May 2025	SA01	**0.03**	**0.02**	**0.12**	<0.02	**0.18**	<0.02	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW196_250516	MW196	Deep	16 May 2025	SA01	<0.02	<0.02	**0.01**	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW195_250519	MW195	Deep	19 May 2025	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW180_200922*	MW180	Intermediate	22 Sep 2020	SA01	<0.02	<0.02	**0.1**	<0.02	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW172_200930*	MW172	Intermediate	30 Sep 2020	SA01	**1.09**	**1.19**	**9.16**	**0.21**	**0.87**	-	<0.04	<0.2	**0.32**	**1.86**	**0.19**	**0.41**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	
0932_MW174_200930*	MW174	Intermediate	30 Sep 2020	SA01	**0.33**	**0.19**	**0.28**	<0.02	<0.01	-	<0.02	<0.1	**0.08**	**0.37**	**0.02**	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW176_200930*	MW176	Intermediate	30 Sep 2020	SA01	**1.04**	**1.18**	**8.27**	**0.22**	**2.04**	-	<0.04	<0.2	**0.45**	**2.6**	**0.29**	**0.75**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW184_200930*	MW184	Intermediate	30 Sep 2020	SA01	**1.3**	**1.16**	**9.82**	**0.32**	**1.99**	-	<0.04	<0.2	**0.55**	**3.42**	**0.41**	**2.22**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW185_200930*	MW185	Intermediate	30 Sep 2020	SA01	**11.9**	**11.3**	**86.6**	**3.47**	**26.5**	-	<0.04	**0.4**	**4.16**	**25.5**	**2.98**	**5.96**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW178_201001*	MW178	Intermediate	01 Oct 2020	SA01	**5.05**	**3.32**	**14.3**	**0.58**	**11.2**	-	<0.04	<0.2	**2.06**	**11.7**	**0.4**	**0.68**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																		
0932_MW179_201001*	MW179	Intermediate	01 Oct 2020	SA01	<0.02	<0.02	**0.04**	<0.02	**0.05**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_201001*	MW180	Intermediate	01 Oct 2020	SA01	**0.02**	<0.02	**0.15**	<0.02	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC103_201001	MW181	Intermediate	01 Oct 2020	SA01	**0.1**	**0.04**	**0.04**	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	**0.16**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_I_201001	MW181	Intermediate	01 Oct 2020	SA01	**0.09**	**0.04**	**0.05**	<0.02	***<0.01***	-	<0.02	<0.1	**0.03**	**0.23**	**0.02**	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_201001*	MW181	Intermediate	01 Oct 2020	SA01	**0.14**	**0.07**	**0.05**	<0.01	**0.01**	<0.01	<0.01	<0.05	**0.06**	**0.29**	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW182_201001*	MW182	Intermediate	01 Oct 2020	SA01	**0.09**	**0.06**	**0.64**	<0.02	**0.26**	-	<0.02	<0.1	**0.06**	**0.37**	**0.04**	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_201001*	MW183	Intermediate	01 Oct 2020	SA01	**0.16**	**0.07**	**0.11**	<0.02	***<0.01***	-	<0.02	<0.1	**0.02**	**0.26**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_I_201001	MW186	Intermediate	01 Oct 2020	SA01	**0.8**	**0.94**	**5.57**	**0.1**	**0.59**	-	<0.04	<0.2	**0.23**	**1.27**	**0.12**	**0.24**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_QC107_201001	MW186	Intermediate	01 Oct 2020	SA01	**0.89**	**0.88**	**5.7**	**0.1**	**0.64**	-	<0.04	<0.2	**0.22**	**1.27**	**0.13**	**0.26**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW186_201001*	MW186	Intermediate	01 Oct 2020	SA01	**0.85**	**0.97**	**6**	**0.17**	**1.3**	<0.01	<0.01	**0.12**	**0.2**	**1.4**	**0.13**	**0.28**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW172_210524*	MW172	Intermediate	24 May 2021	SA01	**1.32**	**1.34**	**11.3**	**0.23**	**1.03**	-	<0.02	**0.3**	**0.44**	**2.66**	**0.22**	**0.5**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW182_210524*	MW182	Intermediate	24 May 2021	SA01	**0.21**	**0.13**	**1.72**	**0.06**	**1.2**	-	<0.02	<0.1	**0.1**	**0.65**	**0.07**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW184_210524	MW184	Intermediate	24 May 2021	SA01	**1.44**	**1.13**	**10.4**	**0.31**	**1.66**	-	<0.02	**0.4**	**0.62**	**3.65**	**0.51**	**2.44**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC105_210524	MW184	Intermediate	24 May 2021	SA01	**1.35**	**1.52**	**9.96**	**0.38**	**2.16**	-	<0.02	**0.3**	**0.67**	**3.38**	**0.54**	**2.5**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW184_210524*	MW184	Intermediate	24 May 2021	SA01	**1.5**	**1.6**	**11**	**0.3**	**2.4**	<0.01	<0.01	**0.36**	**0.68**	**4.3**	**0.58**	**2.5**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW174_210525*	MW174	Intermediate	25 May 2021	SA01	**0.23**	**0.21**	**0.25**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.32**	**0.02**	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210525	MW178	Intermediate	25 May 2021	SA01	**2.25**	**2.53**	**20.9**	**0.45**	**3.65**	-	<0.02	**0.8**	**0.68**	**6.24**	**0.9**	**2.59**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW179_210525*	MW179	Intermediate	25 May 2021	SA01	<0.02	<0.02	**0.09**	<0.02	**0.11**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_210525*	MW181	Intermediate	25 May 2021	SA01	**0.1**	**0.08**	**0.04**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.26**	**0.02**	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_210525*	MW183	Intermediate	25 May 2021	SA01	**0.17**	**0.14**	**0.13**	<0.02	**0.04**	-	<0.02	<0.1	**0.06**	**0.27**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_210525*	MW186	Intermediate	25 May 2021	SA01	**1.06**	**3.11**	**7.93**	**0.18**	**1.6**	-	<0.02	**0.3**	**0.34**	**2.02**	**0.24**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW176_210526*	MW176	Intermediate	26 May 2021	SA01	**0.15**	**0.12**	**0.96**	**0.03**	**3.78**	-	<0.02	<0.1	**0.06**	**0.27**	**0.02**	**0.07**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_210526*	MW180	Intermediate	26 May 2021	SA01	**6.63**	**11**	**96.9**	**3.09**	**66.1**	-	<0.04	**0.6**	**4.81**	**32.7**	**3.53**	**17.9**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW185_210526*	MW185	Intermediate	26 May 2021	SA01	**13.4**	**15.7**	**102**	**4.39**	**35.8**	-	<0.04	**1**	**4.76**	**27**	**3.15**	**6.22**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW172_210728*	MW172	Intermediate	28 Jul 2021	SA01	**1.34**	**1.59**	**11.6**	**0.29**	**1.02**	-	<0.02	**0.3**	**0.44**	**2.3**	**0.25**	**0.49**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW185_210728	MW185	Intermediate	28 Jul 2021	SA01	**9.02**	**7.69**	**66.9**	**2.28**	**15**	-	<0.03	<0.2	**3.47**	**17.5**	**2.02**	**4.29**	<0.03	<0.03	<0.03	<0.03	<0.03	<0.09	-
0932_QC101_210728	MW185	Intermediate	28 Jul 2021	SA01	**8.76**	**7.48**	**75.2**	**2.48**	**17.2**	-	<0.04	<0.2	**3.59**	**19.2**	**2.28**	**4.87**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW185_210728*	MW185	Intermediate	28 Jul 2021	SA01	**15**	**15**	**110**	**2.7**	**26**	<0.01	<0.01	**3**	**1.4**	**25**	**2.9**	**6.2**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW176_210729*	MW176	Intermediate	29 Jul 2021	SA01	**1.01**	**0.59**	**9.88**	**0.24**	**2.02**	-	<0.02	**0.3**	**0.45**	**2.63**	**0.28**	**0.77**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW179_210729*	MW179	Intermediate	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_210729*	MW186	Intermediate	29 Jul 2021	SA01	**1.04**	**0.66**	**6.83**	**0.16**	**1.14**	-	<0.02	**0.2**	**0.32**	**1.67**	**0.15**	**0.32**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_210730*	MW181	Intermediate	30 Jul 2021	SA01	**0.1**	**0.03**	**0.04**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.23**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW182_210730*	MW182	Intermediate	30 Jul 2021	SA01	**0.11**	**0.1**	**0.71**	<0.02	**0.21**	-	<0.02	<0.1	**0.06**	**0.36**	**0.04**	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_210730*	MW183	Intermediate	30 Jul 2021	SA01	**0.26**	**0.13**	**0.11**	<0.02	***<0.01***	-	<0.02	<0.1	**0.1**	**0.41**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW184_210730*	MW184	Intermediate	30 Jul 2021	SA01	**0.21**	**0.26**	**1.41**	**0.04**	**0.3**	-	<0.02	<0.1	**0.11**	**0.55**	**0.08**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW174_210803*	MW174	Intermediate	03 Aug 2021	SA01	**0.3**	**0.13**	**0.33**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.32**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210803	MW178	Intermediate	03 Aug 2021	SA01	**2.42**	**1.51**	**22.2**	**0.7**	**2.54**	-	<0.02	**0.5**	**1.06**	**5.11**	**0.66**	**2.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC106_210803	MW178	Intermediate	03 Aug 2021	SA01	**2.24**	**1.47**	**24**	**0.86**	**3.13**	-	<0.02	**0.5**	**1.04**	**5.84**	**0.77**	**2.69**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210803*	MW178	Intermediate	03 Aug 2021	SA01	**3.1**	**4.2**	**35**	**0.7**	**5.1**	<0.01	<0.01	**0.64**	**1.1**	**7.3**	**1**	**2.7**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW180_210803	MW180	Intermediate	03 Aug 2021	SA01	<0.02	<0.02	**0.15**	<0.02	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_210803*	MW180	Intermediate	03 Aug 2021	SA01	**0.02**	**0.02**	**0.16**	<0.01	**0.07**	<0.01	<0.01	<0.05	**0.01**	**0.05**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW172_230328	MW172	Intermediate	28 Mar 2023	SA01	**1.03**	**1.09**	**7.19**	**0.13**	**0.54**	-	<0.02	**0.1**	**0.32**	**1.69**	**0.17**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW174_230328	MW174	Intermediate	28 Mar 2023	SA01	**0.08**	**0.05**	**0.14**	<0.02	**0.1**	-	<0.02	<0.1	<0.02	**0.11**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW179_230328	MW179	Intermediate	28 Mar 2023	SA01	<0.02	<0.02	**0.07**	<0.02	**0.08**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW181_230328	MW181	Intermediate	28 Mar 2023	SA01	**0.09**	**0.04**	**0.04**	*<0.02*	**0.01**	-	*<0.02*	*<0.1*	**0.04**	**0.18**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW182_230328	MW182	Intermediate	28 Mar 2023	SA01	**0.15**	**0.15**	**1.2**	**0.02**	**0.4**	-	*<0.02*	*<0.1*	**0.09**	**0.52**	**0.06**	**0.19**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW186_230328	MW186	Intermediate	28 Mar 2023	SA01	**1.04**	**1.2**	**7.17**	**0.16**	**1.03**	-	*<0.02*	**0.1**	**0.29**	**1.7**	**0.17**	**0.32**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW178_230329	MW178	Intermediate	29 Mar 2023	SA01	**2.24**	**3.12**	**18**	**0.61**	**3.84**	-	*<0.02*	**0.3**	**0.95**	**4.2**	**0.91**	**2.81**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC103_230329	MW180	Intermediate	29 Mar 2023	SA01	*<0.02*	**0.03**	**0.2**	*<0.02*	**0.26**	-	*<0.02*	*<0.1*	*<0.02*	**0.04**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW180_230329	MW180	Intermediate	29 Mar 2023	SA01	*<0.02*	*<0.02*	**0.18**	*<0.02*	**0.29**	-	*<0.02*	*<0.1*	*<0.02*	**0.04**	*<0.02*	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC203_230329	MW180	Intermediate	29 Mar 2023	SA01	**0.02**	**0.03**	**0.26**	**0.01**	**0.32**	*<0.01*	*<0.01*	*<0.05*	**0.01**	**0.06**	*<0.01*	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW183_230329	MW183	Intermediate	29 Mar 2023	SA01	**0.18**	**0.08**	**0.13**	*<0.02*	**0.06**	-	*<0.02*	*<0.1*	**0.07**	**0.27**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC101_230329	MW185	Intermediate	29 Mar 2023	SA01	**9.86**	**11.4**	**77**	**3.49**	**24.7**	-	*<0.02*	**0.6**	**3.47**	**18.8**	**2.24**	**4.74**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC201_230329	MW185	Intermediate	29 Mar 2023	SA01	**11**	**11**	**84**	**3.2**	**25**	*<0.01*	*<0.01*	**2.3**	**3.8**	**21**	**2.2**	**5.5**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW185_230329	MW185	Intermediate	29 Mar 2023	SA01	**8.67**	**10.7**	**77**	**3.55**	**29.7**	-	*<0.02*	**1**	**3.5**	**17.6**	**2**	**4.5**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW176_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.16**	**0.18**	**1.66**	**0.08**	**3.46**	-	*<0.02*	*<0.1*	**0.07**	**0.35**	**0.04**	**0.11**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC104_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.17**	**0.2**	**1.79**	**0.08**	**3.59**	-	*<0.02*	*<0.1*	**0.08**	**0.4**	**0.04**	**0.12**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC204_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.44**	**0.62**	**4.5**	**0.17**	**4.5**	*<0.01*	*<0.01*	**0.14**	**0.22**	**1.1**	**0.13**	**0.41**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW184_230330	MW184	Intermediate	30 Mar 2023	SA01	**0.94**	**1.09**	**7.05**	**0.2**	**1.14**	-	*<0.02*	**0.1**	**0.47**	**2.38**	**0.33**	**1.78**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	**1.4**	**1.8**	**10**	**0.13**	**0.85**	*<0.001*	*<0.001*	**0.2**	**0.4**	**2.3**	**0.21**	**0.37**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	**0.35**	**0.22**	**0.27**	**0.001**	**0.022**	*<0.001*	*<0.001*	**0.043**	**0.088**	**0.45**	**0.036**	**0.029**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC204_241206	MW179	Intermediate	06 Dec 2024	SA01	**0.0091**	**0.0053**	**0.053**	**0.0028**	**0.097**	-	*<0.0020*	*<0.020*	*<0.0040*	**0.016**	**0.0025**	**0.0053**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_QC104_241206	MW179	Intermediate	06 Dec 2024	SA01	**0.009**	**0.008**	**0.075**	**0.003**	**0.15**	*<0.001*	*<0.001*	*<0.005*	**0.016**	**0.023**	**0.003**	**0.008**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	**0.008**	**0.011**	**0.084**	**0.003**	**0.17**	*<0.001*	*<0.001*	**0.006**	**0.008**	**0.024**	**0.005**	**0.009**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC105_241206	MW184	Intermediate	06 Dec 2024	SA01	**3.8**	**4.7**	**41**	**1.4**	**12**	*<0.1*	*<0.1*	**0.86**	**1.8**	**14**	**1.5**	**7.3**	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	-
0932_QC205_241206	MW184	Intermediate	06 Dec 2024	SA01	**0.87**	**1**	**9.8**	**0.37**	**2.6**	-	*<0.020*	**0.18**	**0.38**	**2.4**	**0.37**	**1.8**	*<0.010*	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	**1.2**	**1.6**	**11**	**0.29**	**2.9**	*<0.0125*	*<0.001*	**0.18**	**0.56**	**3.4**	**0.41**	**1.9**	**0.007**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	**0.8**	**1**	**13**	**1.1**	**73**	*<0.12*	*<0.12*	**0.15**	**0.31**	**1.8**	**0.15**	**0.57**	*<0.12*	*<0.12*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	**0.02**	**0.026**	**0.2**	**0.006**	**0.22**	*<0.001*	*<0.001*	**0.006**	**0.011**	**0.059**	**0.005**	**0.026**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	**1.4**	**1.7**	**11**	**0.32**	**18**	*<0.03*	*<0.03*	**0.23**	**0.64**	**3.7**	**0.5**	**1.8**	*<0.03*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	**3.7**	**5.3**	**35**	**0.98**	**31**	*<0.07*	*<0.001*	**0.63**	**1.8**	**12**	**0.98**	**2.6**	*<0.07*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW172_250506	MW172	Intermediate	06 May 2025	SA01	**1.47**	**1.62**	**11.8**	**0.22**	**0.91**	*<0.02*	*<0.02*	**0.3**	**0.53**	**2.71**	**0.2**	**0.5**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW174_250506	MW174	Intermediate	06 May 2025	SA01	**0.34**	**0.21**	**0.32**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	**0.11**	**0.49**	**0.03**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW179_250506	MW179	Intermediate	06 May 2025	SA01	*<0.02*	*<0.02*	**0.04**	*<0.02*	**0.08**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW180_250506	MW180	Intermediate	06 May 2025	SA01	**0.03**	**0.03**	**0.16**	*<0.02*	**0.21**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.05**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW182_250506	MW182	Intermediate	06 May 2025	SA01	**1.01**	**1.31**	**9.1**	**0.34**	**14.6**	**0.03**	*<0.02*	**0.2**	**0.6**	**3.33**	**0.42**	**1.82**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW183_250506	MW183	Intermediate	06 May 2025	SA01	**0.19**	**0.1**	**0.1**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	**0.08**	**0.36**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW184_250506	MW184	Intermediate	06 May 2025	SA01	**0.33**	**0.38**	**3.41**	**0.14**	**1.1**	*<0.02*	*<0.02*	*<0.1*	**0.2**	**1.18**	**0.13**	**0.75**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW185_250506	MW185	Intermediate	06 May 2025	SA01	**0.27**	**0.34**	**5.33**	**1.11**	**39.9**	**0.07**	*<0.02*	*<0.1*	**0.13**	**0.71**	**0.05**	**0.37**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW176_250516	MW176	Intermediate	16 May 2025	SA01	**0.1**	**0.1**	**1.24**	**0.09**	**3.22**	*<0.02*	*<0.02*	*<0.1*	**0.06**	**0.27**	**0.02**	**0.12**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW178_250516	MW178	Intermediate	16 May 2025	SA01	**2.02**	**2.26**	**16**	**0.37**	**2.96**	*<0.02*	*<0.02*	*<0.1*	**0.83**	**4.75**	**0.54**	**2.14**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW181_250516	MW181	Intermediate	16 May 2025	SA01	**0.11**	**0.04**	**0.05**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.1*	**0.06**	**0.25**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW186_250519	MW186	Intermediate	19 May 2025	SA01	**0.9**	**1.39**	**7.69**	**0.17**	**1.02**	*<0.02*	*<0.02*	**0.1**	**0.24**	**1.45**	**0.15**	**0.36**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932-PCMB19	MW060	Shallow	18 May 2016	SA01	**0.7**	-	**3.6**	-	**0.09**	-	*<0.01*	**0.24**	**0.41**	**1.5**	**0.13**	**0.25**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC201_200922	MW123	Shallow	22 Sep 2020	SA01	**4.6**	**9.3**	**77**	**2.8**	**120**	*<0.1*	*<0.1*	**1.3**	**1.8**	**17**	**1.9**	**7.1**	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	-
0932_QC101_200922	MW123	Shallow	22 Sep 2020	SA01	**4.4**	**5.71**	**64**	**2.6**	**86.8**	-	*<0.02*	**1**	**2.65**	**14.8**	**2.34**	**6.38**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW123_S_200922	MW123	Shallow	22 Sep 2020	SA01	**4.52**	**6.22**	**64.2**	**2.75**	**91.2**	-	*<0.02*	**1**	**2.67**	**14.9**	**2.33**	**6.4**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW154_200922*	MW154	Shallow	22 Sep 2020	SA01	**0.7**	**0.82**	**5.62**	**0.15**	**1.03**	-	*<0.02*	**0.2**	**0.23**	**1.18**	**0.1**	**0.23**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-

Table 3 – Groundwater Analytical Results V1

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW142_200924*	MW142	Shallow	24 Sep 2020	SA01	**8.26**	**16.7**	**193**	**9.38**	**286**	-	*<0.02*	**1.7**	**4.46**	**35.2**	**3.67**	**16.1**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC106_200930	MW114	Shallow	30 Sep 2020	SA01	**1.26**	**1.74**	**20.3**	**0.92**	**14**	-	*<0.04*	*<0.2*	**0.44**	**2.58**	**0.24**	**0.86**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW114_S_200930	MW114	Shallow	30 Sep 2020	SA01	**1.37**	**1.62**	**17.5**	**1.08**	**16.6**	-	*<0.04*	*<0.2*	**0.43**	**2.82**	**0.26**	**0.87**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW114_200930*	MW114	Shallow	30 Sep 2020	SA01	**1.8**	**2.2**	**23**	**1.2**	**23**	*<0.01*	*<0.01*	**0.37**	**0.55**	**3.5**	**0.3**	**1.2**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW117_200930*	MW117	Shallow	30 Sep 2020	SA01	**2.66**	**1.38**	**7.02**	**0.37**	**34.5**	-	*<0.04*	**0.6**	**1.64**	**5.64**	**0.28**	**0.32**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.11*	-
0932_MW119_200930*	MW119	Shallow	30 Sep 2020	SA01	**5.31**	**5.77**	**69.3**	**2.38**	**51.7**	-	*<0.04*	**0.4**	**3.4**	**20.6**	**2.59**	**12.8**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW121_200930*	MW121	Shallow	30 Sep 2020	SA01	**0.46**	**1.27**	**17.9**	**0.57**	**12**	-	*<0.04*	*<0.2*	*<0.04*	**0.17**	**0.41**	**4.1**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW122_200930*	MW122	Shallow	30 Sep 2020	SA01	**10.5**	**19.4**	**211**	**12.7**	**275**	-	*<0.04*	**0.8**	**5.55**	**49.5**	**4.39**	**15.5**	**0.13**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW123_200930*	MW123	Shallow	30 Sep 2020	SA01	**5.9**	**7.66**	**79.4**	**3.82**	**104**	-	*<0.04*	**0.7**	**2.84**	**21.9**	**2.59**	**8.43**	**0.07**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW125_200930*	MW125	Shallow	30 Sep 2020	SA01	**12.9**	**19.4**	**197**	**5.76**	**84.1**	-	*<0.04*	**0.9**	**6.36**	**51**	**3.9**	**14.6**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW127_200930*	MW127	Shallow	30 Sep 2020	SA01	**3.35**	**4.02**	**42.6**	**1.54**	**29.6**	-	*<0.04*	*<0.2*	**2.18**	**12**	**1.22**	**4.73**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW129_200930*	MW129	Shallow	30 Sep 2020	SA01	**0.54**	**0.61**	**4.34**	**0.1**	**0.53**	-	*<0.04*	*<0.2*	**0.09**	**0.85**	**0.08**	**0.13**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW130_200930*	MW130	Shallow	30 Sep 2020	SA01	**0.58**	**0.68**	**4.52**	**0.12**	**0.48**	-	*<0.04*	*<0.2*	**0.12**	**0.85**	**0.07**	**0.13**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW133_200930*	MW133	Shallow	30 Sep 2020	SA01	**0.62**	**0.74**	**15.1**	**0.88**	**12.8**	-	*<0.04*	*<0.2*	**0.47**	**2.7**	**0.23**	**0.86**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.11*	-
0932_MW140_200930*	MW140	Shallow	30 Sep 2020	SA01	**1.26**	**1.25**	**15.8**	**0.76**	**17**	-	*<0.04*	*<0.2*	**0.48**	**3.49**	**0.25**	**0.71**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW141_S_200930	MW141	Shallow	30 Sep 2020	SA01	**1.25**	**1.42**	**20.3**	**2.02**	**65.8**	-	*<0.04*	*<0.2*	**0.41**	**2.87**	**0.27**	**1.1**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW142_200930*	MW142	Shallow	30 Sep 2020	SA01	**5.93**	**8.91**	**123**	**8.1**	**138**	-	*<0.04*	**0.6**	**3.18**	**25.7**	**1.91**	**11.3**	**0.11**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW154_200930*	MW154	Shallow	30 Sep 2020	SA01	**0.55**	**0.55**	**4.82**	**0.11**	**0.78**	-	*<0.04*	*<0.2*	**0.17**	**0.87**	**0.08**	**0.19**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW159_200930*	MW159	Shallow	30 Sep 2020	SA01	**3.39**	**2.03**	**6.26**	**0.1**	**0.89**	-	*<0.04*	*<0.2*	**1.06**	**7.11**	**0.39**	**0.19**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW161_S_200930	MW161	Shallow	30 Sep 2020	SA01	**0.32**	**0.15**	**0.48**	*<0.02*	**0.31**	-	*<0.02*	**0.1**	**0.24**	**1.12**	**0.1**	**0.17**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC104_200930	MW161	Shallow	30 Sep 2020	SA01	**0.32**	**0.14**	**0.51**	*<0.02*	**0.34**	-	*<0.02*	*<0.1*	**0.25**	**1.14**	**0.1**	**0.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_200930*	MW161	Shallow	30 Sep 2020	SA01	**0.41**	**0.18**	**0.61**	**0.02**	**0.53**	*<0.01*	*<0.01*	**0.27**	**0.34**	**1.4**	**0.12**	**0.23**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW120_201001*	MW120	Shallow	01 Oct 2020	SA01	**6.49**	**12.7**	**119**	**1.42**	**31.8**	-	*<0.04*	**0.9**	**5.25**	**42.5**	**3.02**	**9.44**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW134_201001*	MW134	Shallow	01 Oct 2020	SA01	**4.23**	**5.78**	**51.6**	**2.26**	**80.8**	-	*<0.04*	**0.3**	**2.32**	**13.7**	**1.96**	**9.62**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW137_201001*	MW137	Shallow	01 Oct 2020	SA01	**5.72**	**8.4**	**77.5**	**3.06**	**82**	-	*<0.04*	*<0.2*	**3.18**	**17.7**	**1.79**	**7.59**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW156_201001*	MW156	Shallow	01 Oct 2020	SA01	**0.85**	**0.95**	**7.63**	**0.43**	**12.6**	-	*<0.04*	*<0.2*	**0.35**	**1.86**	**0.13**	**0.46**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW157_201001*	MW157	Shallow	01 Oct 2020	SA01	**0.14**	**0.07**	**0.2**	*<0.02*	**0.12**	-	*<0.02*	**0.2**	**0.08**	**0.12**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_201001*	MW158	Shallow	01 Oct 2020	SA01	**6.88**	**5.85**	**32.9**	**0.95**	**12.6**	-	*<0.04*	**0.3**	**2.77**	**15.8**	**1.07**	**2.9**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW160_201001*	MW160	Shallow	01 Oct 2020	SA01	**4.76**	**4.82**	**20.4**	**0.42**	**8.53**	-	*<0.04*	**0.3**	**1.14**	**5.61**	**0.81**	**1.91**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW120_210524*	MW120	Shallow	24 May 2021	SA01	**4.69**	**8.88**	**76.1**	**1.49**	**24.4**	-	*<0.04*	**2**	**4.24**	**28.3**	**1.92**	**4.89**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW122_210524*	MW122	Shallow	24 May 2021	SA01	**10.5**	**22.6**	**210**	**16.5**	**392**	-	*<0.04*	**2.7**	**5.9**	**49.4**	**4.5**	**15.3**	**0.17**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW129_210524*	MW129	Shallow	24 May 2021	SA01	**0.9**	**1**	**6.78**	**0.12**	**0.59**	-	*<0.02*	**0.3**	**0.22**	**1.4**	**0.1**	**0.18**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW133_210524*	MW133	Shallow	24 May 2021	SA01	**0.73**	**1.52**	**13.1**	**0.45**	**6.49**	-	*<0.02*	*<0.1*	**0.3**	**2.4**	**0.2**	**0.47**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW134_210524*	MW134	Shallow	24 May 2021	SA01	**1.2**	**1.74**	**13.2**	**0.54**	**20.6**	-	*<0.02*	**0.2**	**0.92**	**4.52**	**0.57**	**2.61**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW141_210524*	MW141	Shallow	24 May 2021	SA01	**1.32**	**2.4**	**23.5**	**1.64**	**68.3**	-	*<0.02*	**0.3**	**0.57**	**3.34**	**0.33**	**1.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW142_210524*	MW142	Shallow	24 May 2021	SA01	**8.3**	**11**	**150**	**5.9**	**150**	*<0.01*	*<0.01*	**2**	**5.3**	**32**	**3.3**	**11**	**0.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC104_210524	MW142	Shallow	24 May 2021	SA01	**7.08**	**12.2**	**156**	**8.27**	**164**	-	*<0.04*	**2.3**	**4.22**	**29.7**	**2.85**	**12.9**	**0.08**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW142_210524	MW142	Shallow	24 May 2021	SA01	**7.4**	**15.6**	**154**	**9.28**	**176**	-	*<0.04*	**2.1**	**4.21**	**33.4**	**2.86**	**13.4**	**0.06**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW157_210524*	MW157	Shallow	24 May 2021	SA01	**0.15**	**0.06**	**0.2**	*<0.02*	**0.28**	-	*<0.02*	**0.3**	**0.22**	**0.19**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW159_210524*	MW159	Shallow	24 May 2021	SA01	**2.67**	**2.73**	**9.48**	**0.13**	**1.27**	-	*<0.02*	**0.6**	**1.12**	**6.57**	**0.58**	**0.27**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_210524*	MW161	Shallow	24 May 2021	SA01	**0.33**	**0.14**	**0.54**	*<0.02*	**0.46**	-	*<0.02*	**0.4**	**0.27**	**1.25**	**0.11**	**0.19**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW130_210525	MW130	Shallow	25 May 2021	SA01	**1.81**	**3.1**	**11.7**	**0.19**	**0.69**	-	*<0.02*	**0.5**	**0.44**	**2.73**	**0.25**	**0.31**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW156_210525*	MW156	Shallow	25 May 2021	SA01	**1.19**	**2.89**	**13.4**	**1.07**	**29.4**	-	*<0.02*	**0.4**	**0.53**	**2.53**	**0.26**	**0.61**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_210525*	MW158	Shallow	25 May 2021	SA01	**2.43**	**1.76**	**12.7**	**0.7**	**12.1**	-	*<0.02*	**1.1**	**1.21**	**5.19**	**0.42**	**0.67**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-

Table 3 – Groundwater Analytical Results V1

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW160_210525	MW160	Shallow	25 May 2021	SA01	**4.71**	**4.18**	**18.9**	**0.44**	**0.83**	-	*<0.02*	**1**	**1.24**	**5.39**	**1**	**1.72**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC103_210526	MW114	Shallow	26 May 2021	SA01	**1.3**	**1.81**	**18.4**	**1.27**	**17**	-	*<0.02*	**0.3**	**0.48**	**3.03**	**0.26**	**0.74**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW114_210526*	MW114	Shallow	26 May 2021	SA01	**1.4**	**1.8**	**21**	**0.82**	**18**	*<0.01*	*<0.01*	**0.42**	**0.57**	**3.3**	**0.32**	**1.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW114_210526	MW114	Shallow	26 May 2021	SA01	**1.41**	**1.8**	**19.2**	**1.02**	**19.3**	-	*<0.04*	*<0.2*	**0.54**	**2.96**	**0.21**	**0.78**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW117_210526*	MW117	Shallow	26 May 2021	SA01	**2.44**	**1.38**	**8.9**	**0.3**	**34.8**	-	*<0.04*	**0.6**	**1.56**	**5.19**	**0.2**	**0.32**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW119_210526*	MW119	Shallow	26 May 2021	SA01	**0.04**	*<0.02*	**0.18**	*<0.02*	**0.06**	-	*<0.02*	*<0.1*	*<0.02*	**0.06**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW121_210526*	MW121	Shallow	26 May 2021	SA01	**1.13**	**1.95**	**21.7**	**0.55**	**11.8**	-	*<0.04*	*<0.2*	**1.02**	**5.23**	**0.91**	**4.66**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW123_210526*	MW123	Shallow	26 May 2021	SA01	**6.24**	**10**	**94.7**	**6.48**	**140**	-	*<0.04*	**0.8**	**3.39**	**21.7**	**2.9**	**10.2**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW125_210526*	MW125	Shallow	26 May 2021	SA01	**14.5**	**30.6**	**200**	**5.21**	**84.9**	-	*<0.04*	**1.4**	**8.45**	**60.9**	**4.12**	**14**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW137_210526*	MW137	Shallow	26 May 2021	SA01	**4.56**	**6.48**	**59.8**	**2.49**	**94.7**	-	*<0.04*	*<0.2*	**2.44**	**16.3**	**1.41**	**6.6**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW140_210526*	MW140	Shallow	26 May 2021	SA01	**1.68**	**1.87**	**17.2**	**0.7**	**17.1**	-	*<0.04*	*<0.2*	**0.64**	**3.58**	**0.23**	**0.7**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW154_210526*	MW154	Shallow	26 May 2021	SA01	**0.93**	**0.79**	**6.47**	**0.05**	**0.86**	-	*<0.04*	*<0.2*	**0.26**	**1.23**	**0.08**	**0.21**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW114_210728*	MW114	Shallow	28 Jul 2021	SA01	**1.22**	**2**	**17.9**	**1.37**	**22.2**	-	*<0.02*	**0.3**	**0.46**	**2.61**	**0.26**	**0.85**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW117_210728*	MW117	Shallow	28 Jul 2021	SA01	**2.16**	**1.3**	**7.74**	**0.47**	**30.7**	-	*<0.02*	**1.2**	**1.38**	**4.8**	**0.23**	**0.3**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW129_210728*	MW129	Shallow	28 Jul 2021	SA01	**0.91**	**0.9**	**5.92**	**0.13**	**0.56**	-	*<0.02*	**0.2**	**0.2**	**1.21**	**0.11**	**0.17**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW140_210728*	MW140	Shallow	28 Jul 2021	SA01	**1.41**	**1.98**	**16.8**	**0.92**	**13.2**	-	*<0.02*	**0.5**	**0.56**	**2.92**	**0.3**	**0.85**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW141_210728*	MW141	Shallow	28 Jul 2021	SA01	**1.27**	**2.06**	**21.1**	**2.64**	**80.4**	-	*<0.02*	**0.3**	**0.44**	**2.91**	**0.29**	**1.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW159_210728*	MW159	Shallow	28 Jul 2021	SA01	**2.58**	**3.46**	**11.1**	**0.15**	**0.83**	-	*<0.02*	**0.5**	**1.07**	**7.55**	**0.64**	**0.3**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW122_210729*	MW122	Shallow	29 Jul 2021	SA01	**11.4**	**12**	**199**	**20.8**	**554**	-	*<0.04*	**1.3**	**6.46**	**48.6**	**4.12**	**19.4**	**0.16**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW130_210729*	MW130	Shallow	29 Jul 2021	SA01	**1.84**	**1.51**	**12.9**	**0.23**	**0.81**	-	*<0.02*	**0.3**	**0.58**	**3.53**	**0.22**	**0.37**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW142_210729*	MW142	Shallow	29 Jul 2021	SA01	**6.58**	**7.94**	**185**	**24.6**	**370**	-	*<0.04*	**1.1**	**4.7**	**37.2**	**2.81**	**16**	**0.17**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW156_210729*	MW156	Shallow	29 Jul 2021	SA01	**1**	**0.57**	**8.99**	**0.64**	**15.8**	-	*<0.02*	**0.4**	**0.5**	**2.38**	**0.15**	**0.46**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_210729*	MW158	Shallow	29 Jul 2021	SA01	**2.17**	**0.73**	**6.42**	**0.31**	**6.52**	-	*<0.02*	**0.9**	**1.11**	**4.53**	**0.17**	**0.31**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW119_210730*	MW119	Shallow	30 Jul 2021	SA01	**4.04**	**3.3**	**50.8**	**1.66**	**34**	-	*<0.04*	**0.2**	**2.28**	**13.3**	**1.57**	**8.66**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW121_210730*	MW121	Shallow	30 Jul 2021	SA01	**1.12**	**0.75**	**18.2**	**0.56**	**11.5**	-	*<0.02*	**0.5**	**0.82**	**5.07**	**0.76**	**3.96**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW125_210730*	MW125	Shallow	30 Jul 2021	SA01	**10.8**	**14.6**	**182**	**6.53**	**101**	-	*<0.04*	**0.9**	**6.61**	**45.1**	**3.24**	**14.4**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW134_210730*	MW134	Shallow	30 Jul 2021	SA01	**1.15**	**0.72**	**12.5**	**0.72**	**18.4**	-	*<0.02*	**0.2**	**0.85**	**4.27**	**0.5**	**2.59**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW137_210730*	MW137	Shallow	30 Jul 2021	SA01	**3.91**	**3.22**	**58.6**	**2.45**	**76**	-	*<0.04*	*<0.2*	**2.04**	**13.4**	**1.18**	**6.18**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW160_210730*	MW160	Shallow	30 Jul 2021	SA01	**3.93**	**3.07**	**18.4**	**0.37**	**0.71**	-	*<0.02*	**0.8**	**1.29**	**5.44**	**0.74**	**1.84**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_210730*	MW161	Shallow	30 Jul 2021	SA01	**0.19**	**0.04**	**0.31**	*<0.02*	**0.25**	-	*<0.02*	**0.6**	**0.17**	**0.62**	**0.05**	**0.1**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW120_210803*	MW120	Shallow	03 Aug 2021	SA01	**5.3**	**5.37**	**77.1**	**1.66**	**23.2**	-	*<0.02*	**1.8**	**4.47**	**26**	**2**	**6.94**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW123_210803*	MW123	Shallow	03 Aug 2021	SA01	**6.7**	**11**	**140**	**4.1**	**150**	**0.04**	*<0.01*	**1.2**	**2.7**	**22**	**2.7**	**8.8**	**0.12**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW123_210803	MW123	Shallow	03 Aug 2021	SA01	**8.02**	**6.93**	**101**	**2.94**	**84.3**	-	*<0.02*	**1.8**	**3.76**	**18.9**	**2.54**	**9.68**	**0.05**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC105_210803	MW123	Shallow	03 Aug 2021	SA01	**7.65**	**7.6**	**107**	**3.64**	**87.7**	-	*<0.02*	**1.6**	**3.41**	**19.7**	**2.56**	**9.63**	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW133_210803*	MW133	Shallow	03 Aug 2021	SA01	**0.83**	**0.65**	**13**	**0.81**	**5.43**	-	*<0.02*	*<0.1*	**0.3**	**2.63**	**0.13**	**0.48**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW154_210803*	MW154	Shallow	03 Aug 2021	SA01	**0.88**	**0.54**	**7.74**	**0.2**	**1.34**	-	*<0.02*	**0.2**	**0.27**	**1.63**	**0.1**	**0.25**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW157_210803*	MW157	Shallow	03 Aug 2021	SA01	**0.15**	**0.03**	**0.17**	*<0.02*	**0.12**	-	*<0.02*	**0.2**	**0.2**	**0.14**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW129_230328	MW129	Shallow	28 Mar 2023	SA01	**1.59**	**1.65**	**9.54**	**0.17**	**0.68**	-	*<0.02*	**0.2**	**0.52**	**2.6**	**0.21**	**0.35**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW130_230328	MW130	Shallow	28 Mar 2023	SA01	**1.97**	**2.14**	**11.5**	**0.24**	**0.98**	-	*<0.02*	**0.2**	**0.54**	**3.01**	**0.24**	**0.35**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW134_230328	MW134	Shallow	28 Mar 2023	SA01	**1.25**	**1.46**	**11.9**	**0.55**	**17.4**	-	*<0.02*	**0.2**	**0.69**	**3.97**	**0.49**	**2.15**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW114_230329	MW114	Shallow	29 Mar 2023	SA01	**1.24**	**2.03**	**8.29**	**2.37**	**27.4**	-	*<0.02*	**0.4**	**0.49**	**2.45**	**0.25**	**0.9**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW119_230329	MW119	Shallow	29 Mar 2023	SA01	**3.21**	**4.44**	**37.3**	**1.7**	**40**	-	*<0.02*	**0.5**	**1.6**	**9.89**	**1.37**	**6.8**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW120_230329	MW120	Shallow	29 Mar 2023	SA01	**5.07**	**7.31**	**52.6**	**1.56**	**38.2**	-	*<0.02*	**0.6**	**2.81**	**19.8**	**1.34**	**3.64**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW121_230329	MW121	Shallow	29 Mar 2023	SA01	**0.9**	**1.32**	**10.7**	**0.46**	**7.15**	-	*<0.02*	**0.3**	**0.66**	**3.02**	**0.67**	**3.03**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-

Table 3 – Groundwater Analytical Results V1

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW125_230329	MW125	Shallow	29 Mar 2023	SA01	**9.07**	**15.5**	**128**	**4.01**	**73.6**	-	*<0.02*	**1.2**	**4.86**	**31.6**	**2.63**	**9.12**	**0.05**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW137_230329	MW137	Shallow	29 Mar 2023	SA01	**2.74**	**3.7**	**32.7**	**1.35**	**53.9**	-	*<0.02*	**0.3**	**1.3**	**7.56**	**0.79**	**4.12**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW140_230329	MW140	Shallow	29 Mar 2023	SA01	**1.53**	**2.22**	**10.7**	**0.72**	**6.19**	-	*<0.02*	**0.4**	**0.56**	**3.15**	**0.29**	**0.73**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW141_230329	MW141	Shallow	29 Mar 2023	SA01	**1.43**	**2.01**	**21.2**	**2.22**	**94.2**	-	*<0.02*	**0.1**	**0.47**	**3.08**	**0.24**	**0.79**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW156_230329	MW156	Shallow	29 Mar 2023	SA01	**1.36**	**1.5**	**6.31**	**0.97**	**22.3**	-	*<0.02*	**0.3**	**0.51**	**2.57**	**0.22**	**0.52**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_230329	MW158	Shallow	29 Mar 2023	SA01	**1.58**	**2.58**	**18.5**	**1.32**	**26.2**	-	*<0.02*	**1.6**	**0.74**	**3.51**	**0.41**	**0.97**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW159_230329	MW159	Shallow	29 Mar 2023	SA01	**1.43**	**2.32**	**8.49**	**0.13**	**1.23**	-	*<0.02*	**0.4**	**0.69**	**2.66**	**0.45**	**0.33**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_230329	MW161	Shallow	29 Mar 2023	SA01	**0.51**	**0.44**	**1.54**	*<0.02*	**0.05**	-	*<0.02*	*<0.1*	**0.26**	**1.1**	**0.12**	**0.24**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW117_230330	MW117	Shallow	30 Mar 2023	SA01	**1.94**	**1.4**	**9.43**	**0.35**	**16.1**	-	*<0.02*	**0.5**	**1.17**	**3.98**	**0.22**	**0.39**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW122_230330	MW122	Shallow	30 Mar 2023	SA01	**4.23**	**7.43**	**74.1**	**6.18**	**177**	-	*<0.02*	**0.7**	**2.24**	**15.2**	**1.71**	**6.85**	**0.1**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW123_230330	MW123	Shallow	30 Mar 2023	SA01	**10.3**	**17.4**	**88.2**	**5.42**	**75.6**	-	*<0.02*	**1.1**	**3.78**	**22.3**	**3.09**	**9.86**	**0.07**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW142_230330	MW142	Shallow	30 Mar 2023	SA01	**4.52**	**9.89**	**130**	**19.1**	**221**	-	*<0.02*	**0.8**	**2.78**	**21.1**	**1.98**	**11.1**	**0.21**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW157_230330	MW157	Shallow	30 Mar 2023	SA01	**0.27**	**0.11**	**0.43**	*<0.02*	**0.27**	-	*<0.02*	*<0.1*	**0.15**	**0.21**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW160_230330	MW160	Shallow	30 Mar 2023	SA01	**3.37**	**3.85**	**13.5**	**0.29**	**0.69**	-	*<0.02*	**0.3**	**0.88**	**4.01**	**0.6**	**1.43**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW133_230331	MW133	Shallow	31 Mar 2023	SA01	**0.96**	**1.44**	**15.2**	**0.59**	**5.74**	-	*<0.02*	*<0.1*	**0.19**	**1.89**	**0.12**	**0.42**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW154_230331	MW154	Shallow	31 Mar 2023	SA01	**1.52**	**2.09**	**11.3**	**0.14**	**0.72**	-	*<0.02*	**0.2**	**0.47**	**2.28**	**0.19**	**0.29**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	**3.7**	**5**	**42**	**1.2**	**37**	*<0.06*	*<0.06*	**0.8**	**2.1**	**13**	**1.6**	**7**	*<0.06*	*<0.06*	*<0.001*	*<0.001*	*<0.001*	*<0.06*	-
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	**1.9**	**2**	**9.3**	**0.089**	**0.5**	*<0.001*	*<0.001*	**0.26**	**0.46**	**2.6**	**0.18**	**0.26**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	**1.4**	**1.7**	**14**	**0.36**	**7.1**	*<0.0125*	*<0.0125*	**0.24**	**0.47**	**2.7**	**0.19**	**0.43**	*<0.0125*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0125*	-
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	**9.8**	**13**	**84**	**3.1**	**33**	*<0.06*	*<0.001*	**1.1**	**3.2**	**18**	**2.2**	**4.6**	*<0.06*	*<0.06*	*<0.001*	*<0.001*	*<0.001*	*<0.06*	-
0932_QC103_241206	MW141	Shallow	06 Dec 2024	SA01	**12**	**11**	**87**	**2.9**	**34**	*<0.0625*	*<0.001*	**1.2**	**4.3**	**21**	**2.5**	**5.4**	*<0.0625*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC203_241206	MW141	Shallow	06 Dec 2024	SA01	**11**	**16**	**100**	**7.5**	**42**	-	*<0.020*	**1.9**	**3.5**	**19**	**3**	**6.7**	**0.04**	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	**2.4**	**3.7**	**40**	**1.1**	**16**	*<0.1*	*<0.1*	**0.61**	**1.3**	**13**	**0.94**	**4.5**	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	-
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	**3.7**	**3.3**	**15**	**0.21**	**0.79**	*<0.001*	*<0.001*	**0.32**	**0.97**	**4.3**	**0.6**	**1.3**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	*<0.001*	*<0.001*	**0.013**	*<0.001*	**0.021**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	**69**	**85**	**940**	**20**	**460**	*<0.001*	*<0.001*	**12**	**32**	**210**	**33**	**98**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	**0.21**	**0.22**	**2.4**	**0.076**	**1.5**	*<0.001*	*<0.001*	**0.053**	**0.11**	**0.62**	**0.093**	**0.41**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	**2.3**	**2.8**	**24**	*<0.001*	**0.94**	*<0.001*	*<0.001*	*<0.005*	**0.7**	**2.6**	**0.24**	**1.1**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	**6.3**	**5.2**	**43**	**2.2**	**42**	**0.058**	*<0.001*	**2.1**	**2**	**10**	**0.96**	**2.2**	**0.005**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW119_250506	MW119	Shallow	06 May 2025	SA01	**4.61**	**8.91**	**65.2**	**4.31**	**74.1**	**0.26**	*<0.02*	**1.5**	**3.54**	**21.2**	**2.57**	**11.2**	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW120_250506	MW120	Shallow	06 May 2025	SA01	**2.27**	**2.98**	**20.7**	**0.94**	**12.4**	*<0.02*	*<0.02*	**0.6**	**1.35**	**7.97**	**0.68**	**2.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW125_250506	MW125	Shallow	06 May 2025	SA01	**2.93**	**6.06**	**47.7**	**3.12**	**49.1**	**0.06**	*<0.02*	**0.7**	**1.64**	**10.9**	**0.98**	**4.52**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW129_250506	MW129	Shallow	06 May 2025	SA01	**1.66**	**1.68**	**8.85**	**0.13**	**0.62**	*<0.02*	*<0.02*	**0.4**	**0.53**	**2.73**	**0.15**	**0.28**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC102_250506	MW133	Shallow	06 May 2025	SA01	**1.07**	**1.16**	**12.5**	**0.42**	**5.79**	*<0.02*	*<0.02*	**0.1**	**0.36**	**1.75**	**0.12**	**0.33**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW133_250506	MW133	Shallow	06 May 2025	SA01	**0.92**	**1.16**	**12.7**	**0.43**	**6.06**	*<0.02*	*<0.02*	**0.1**	**0.36**	**1.81**	**0.13**	**0.36**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC202_250506	MW133	Shallow	06 May 2025	SA01	**0.71**	**1.2**	**12**	**0.38**	**6.1**	*<0.01*	*<0.01*	**0.22**	**0.18**	**1.5**	**0.11**	**0.39**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW134_250506	MW134	Shallow	06 May 2025	SA01	**0.23**	**0.25**	**1.7**	**0.03**	**0.34**	*<0.02*	*<0.02*	*<0.1*	**0.14**	**0.76**	**0.08**	**0.24**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW141_250506	MW141	Shallow	06 May 2025	SA01	**9.7**	**13.2**	**65.8**	**3.59**	**18.5**	*<0.02*	*<0.02*	**2.1**	**3.77**	**18.8**	**1.98**	**5.36**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW142_250506	MW142	Shallow	06 May 2025	SA01	**0.24**	**0.71**	**15.4**	**3.06**	**83.4**	**0.08**	*<0.02*	*<0.1*	**0.28**	**2.88**	**0.14**	**1.29**	**0.05**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW154_250506	MW154	Shallow	06 May 2025	SA01	**1.49**	**1.99**	**13.6**	**0.2**	**1.12**	*<0.02*	*<0.02*	**0.4**	**0.49**	**2.65**	**0.17**	**0.37**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW158_250506	MW158	Shallow	06 May 2025	SA01	**2.98**	**4.21**	**31.8**	**1.44**	**28.3**	**0.06**	*<0.02*	**0.8**	**1.61**	**6.51**	**0.54**	**1.6**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW160_250506	MW160	Shallow	06 May 2025	SA01	**3.22**	**3.86**	**14.2**	**0.41**	**0.95**	*<0.02*	*<0.02*	**0.5**	**0.91**	**4.31**	**0.6**	**1.63**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC103_250506	MW160	Shallow	06 May 2025	SA01	**3.37**	**4.1**	**14.3**	**0.43**	**0.97**	*<0.02*	*<0.02*	**0.6**	**0.92**	**4.37**	**0.59**	**1.57**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC203_250506	MW160	Shallow	06 May 2025	SA01	**4.2**	**4.2**	**15**	**0.48**	**1.8**	*<0.01*	*<0.01*	**0.65**	**1**	**5.1**	**0.63**	**1.8**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																
0932_MW121_250516	MW121	Shallow	16 May 2025	SA01	**1.2**	**1.6**	**14.8**	**0.58**	**13.2**	*<0.02*	*<0.02*	*<0.1*	**0.99**	**4.6**	**0.64**	**3.56**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW127_250516	MW127	Shallow	16 May 2025	SA01	**5.82**	**6.88**	**54.6**	**1.95**	**50.4**	**0.16**	*<0.02*	**2**	**4.58**	**18.7**	**2.03**	**8.66**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW137_250516	MW137	Shallow	16 May 2025	SA01	**5.92**	**8.22**	**76.2**	**2.25**	**55**	**0.16**	*<0.02*	**1.4**	**3.55**	**20**	**1.81**	**7.8**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW157_250516	MW157	Shallow	16 May 2025	SA01	**0.27**	**0.12**	**0.34**	*<0.02*	**0.23**	*<0.02*	*<0.02*	**0.5**	**0.22**	**0.24**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW161_250516	MW161	Shallow	16 May 2025	SA01	**0.1**	**0.06**	**0.48**	*<0.02*	**0.11**	*<0.02*	*<0.02*	**1.3**	**0.26**	**0.18**	**0.03**	**0.13**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW114_250519	MW114	Shallow	19 May 2025	SA01	*<0.02*	**0.04**	**0.72**	**0.21**	**9.32**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.08**	*<0.02*	**0.07**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW117_250519	MW117	Shallow	19 May 2025	SA01	**4.09**	**3.67**	**16.7**	**0.36**	**17.8**	*<0.02*	*<0.02*	**1.3**	**1.88**	**9.54**	**0.44**	**0.74**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW122_250519	MW122	Shallow	19 May 2025	SA01	**3.13**	**5.98**	**67.5**	**4.94**	**150**	**0.04**	*<0.02*	**0.7**	**1.78**	**13.9**	**0.97**	**6.42**	**0.08**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_PW139_250519	MW139	Shallow	19 May 2025	SA01	**0.007**	**0.007**	**0.11**	**0.007**	**0.73**	**0.001**	**0.002**	*<0.005*	**0.005**	**0.028**	**0.005**	**0.018**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW140_250519	MW140	Shallow	19 May 2025	SA01	**1.53**	**2.43**	**16.9**	**0.68**	**10.1**	*<0.02*	*<0.02*	**0.3**	**0.53**	**3.29**	**0.24**	**0.7**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_PW140_250520	MW140	Shallow	20 May 2025	SA01	**0.004**	**0.005**	**0.069**	**0.006**	**0.37**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.019**	**0.003**	**0.009**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932-F03MW	MW036	Unknown	18 May 2016	SA01	**0.45**	-	**7.4**	-	**0.3**	-	*<0.01*	**0.06**	**0.24**	**2.3**	**0.32**	**0.7**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW034_160517*	MW034	Shallow	17 May 2016	SA02	*<0.01*	-	**0.03**	-	**0.01**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW021_180409	MW021	Shallow	09 Apr 2018	SA02	**0.02**	**0.03**	**0.34**	**0.02**	**1.4**	-	*<0.01*	*<0.05*	**0.01**	**0.09**	**0.01**	**0.04**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW034_180409	MW034	Shallow	09 Apr 2018	SA02	*<0.01*	*<0.01*	**0.12**	*<0.01*	**0.31**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW022_180410	MW022	Shallow	10 Apr 2018	SA02	**5.9**	**8.8**	**100**	**4.6**	**150**	-	*<0.2*	**1.8**	**3.6**	**22**	**1.5**	**16**	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	-
MW023_180411	MW023	Shallow	11 Apr 2018	SA02	**8.1**	**15**	**170**	**9.8**	**230**	-	*<0.2*	**3.1**	**8.8**	**42**	**3.8**	**26**	*<0.2*	*<0.2*	*<0.2*	**2.8**	*<0.2*	*17*	-
QC130_180411	MW023	Shallow	11 Apr 2018	SA02	**8**	**15**	**170**	**11**	**240**	-	*<0.2*	**2.8**	**7.9**	**42**	**3.7**	**27**	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	-
QC230_180411	MW023	Shallow	11 Apr 2018	SA02	**1.42**	**1.71**	**28.9**	**1.84**	**50.2**	-	*<0.02*	**0.2**	**0.78**	**6.93**	**0.47**	**6**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
MW024_180411	MW024	Shallow	11 Apr 2018	SA02	**6.5**	**10**	**89**	**5.8**	**160**	-	*<0.2*	**2.6**	**5.1**	**26**	**2.2**	**9.6**	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	-
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	**0.013**	**0.022**	**0.22**	**0.014**	**0.69**	**0.005**	**0.001**	*<0.005*	**0.005**	**0.049**	**0.01**	**0.033**	**0.005**	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	**0.002**	**0.004**	**0.043**	**0.002**	**0.19**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.004**	*<0.001*	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	**0.23**	**0.65**	**9.2**	**0.43**	**52**	**0.21**	*<0.07*	**0.36**	**0.24**	**3.3**	**0.087**	**0.94**	**0.005**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	**13**	**21**	**240**	**17**	**500**	*<0.3*	*<0.3*	**5.3**	**11**	**66**	**5**	**31**	*<0.3*	*<0.3*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW021_250506	MW021	Shallow	06 May 2025	SA02	*<0.02*	*<0.02*	**0.23**	*<0.02*	**0.68**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.03**	*<0.02*	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW023_250506	MW023	Shallow	06 May 2025	SA02	**5.37**	**8.03**	**78.8**	**6.54**	**158**	**0.96**	**0.05**	**2.1**	**4.86**	**29.8**	**2**	**13.8**	**0.06**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	*<0.09*
0932_MW034_250506	MW034	Shallow	06 May 2025	SA02	*<0.02*	*<0.02*	**0.04**	*<0.02*	**0.13**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW022_250508	MW022	Shallow	08 May 2025	SA02	**0.57**	**0.72**	**8.27**	**0.4**	**27.5**	**0.12**	*<0.02*	**0.2**	**0.33**	**2.22**	**0.15**	**1.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW201_250508	MW201	Shallow	08 May 2025	SA02	*<0.002*	**0.04**	**0.692**	**0.018**	**0.187**	-	*<0.002*	**0.05**	**0.042**	**0.2**	**0.042**	**0.242**	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.005*	*<0.005*
MW003_180409	MW003	Shallow	09 Apr 2018	SA03	**0.01**	**0.02**	**0.12**	*<0.01*	**0.07**	-	*<0.01*	*<0.05*	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW004_180410	MW004	Shallow	10 Apr 2018	SA03	**0.02**	**0.02**	**0.17**	*<0.01*	**0.09**	-	*<0.01*	*<0.05*	**0.02**	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW010_180411	MW010	Shallow	11 Apr 2018	SA03	**0.01**	**0.01**	**0.06**	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW011_180412	MW011	Shallow	12 Apr 2018	SA03	*<0.01*	*<0.01*	**0.02**	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	**0.007**	**0.009**	**0.042**	**0.003**	**0.032**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.008**	**0.002**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	**0.009**	**0.007**	**0.042**	**0.001**	**0.028**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.007**	**0.001**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	**0.007**	**0.003**	**0.018**	*<0.001*	**0.021**	*<0.001*	*<0.001*	*<0.005*	**0.001**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	**0.006**	**0.002**	**0.011**	*<0.001*	**0.014**	*<0.001*	*<0.001*	*<0.005*	**0.007**	**0.005**	**0.002**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC201_241206	MW203	Shallow	06 Dec 2024	SA03	**0.0036**	**0.0031**	**0.02**	*<0.0010*	**0.016**	-	*<0.0020*	*<0.020*	*<0.0040*	**0.0031**	**0.00065**	**0.00087**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_QC101_241206	MW203	Shallow	06 Dec 2024	SA03	**0.005**	**0.002**	**0.013**	*<0.001*	**0.019**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	**0.002**	**0.002**	**0.01**	*<0.001*	**0.024**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	*<0.02*	*<0.02*	**0.04**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	**0.026**	**0.005**	**0.034**	*<0.003*	**0.021**	-	*<0.003*	*<0.01*	**0.003**	**0.011**	*<0.003*	**0.003**	*<0.003*	*<0.003*	*<0.003*	*<0.003*	*<0.003*	*<0.007*	*<0.007*
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	*<0.02*	*<0.02*	**0.03**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	**0.009**	**0.003**	**0.026**	*<0.002*	**0.011**	-	*<0.002*	*<0.01*	**0.003**	**0.006**	**0.002**	**0.002**	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.005*	*<0.005*

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW004_250505	MW004	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.04**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC102_250505	MW203	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.01**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.01	**0.01**	<0.01	**0.03**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.01	**0.02**	<0.01	**0.04**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW203_250505	MW203	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.03**	<0.02	**0.05**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.02	<0.02	**0.02**	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	**0.005**	**0.003**	**0.017**	<0.002	**0.006**	-	<0.002	<0.01	<0.002	**0.003**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
MW019_180405	MW019	Shallow	05 Apr 2018	SA04	**10**	**11**	**79**	**7.3**	**160**	-	<0.2	**2.4**	**4.4**	**20**	**2.6**	**5**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
MW018_180406	MW018	Shallow	06 Apr 2018	SA04	**42**	**58**	**300**	**49**	**960**	-	<0.01	**9.6**	**20**	**100**	**11**	**24**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW057_180406	MW057	Shallow	06 Apr 2018	SA04	**0.87**	**1.1**	**2.1**	**0.02**	**4.5**	-	**0.02**	**0.08**	**0.15**	**0.82**	**0.07**	**0.07**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	**20**	**21**	**180**	**16**	**550**	**0.81**	<0.125	**1.3**	**8.9**	**59**	**6.1**	**11**	<0.125	<0.125	<0.125	<0.001	<0.001	<0.001	-
0932_MW019_241205	MW019	Shallow	05 Dec 2024	SA04	**3**	**3.5**	**30**	**1.3**	**67**	**0.11**	<0.0625	**0.33**	**1.5**	**8.4**	**0.92**	**1.6**	<0.0625	<0.0625	<0.001	<0.001	<0.001	<0.001	-
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	**3.2**	**4.5**	**34**	**2.4**	**69**		**0.038**	**0.94**	**1.4**	**7.7**	**1.1**	**1.8**	**0.038**	<0.020	<0.020	<0.050	<0.10	<0.50	-
0932_QC101_241205	MW019	Shallow	05 Dec 2024	SA04	**3.1**	**3.7**	**33**	**1.4**	**70**	<0.125	<0.125	**0.27**	**1.4**	**8.5**	**0.95**	**1.7**	<0.125	<0.125	<0.001	<0.001	<0.001	<0.001	-
0932_MW204_241205	MW204	Shallow	05 Dec 2024	SA04	**1.1**	**1.1**	**9.6**	**0.61**	**29**	**0.069**	<0.025	**0.079**	**0.46**	**2.5**	**0.22**	**0.52**	**0.004**	**0.002**	<0.001	<0.001	<0.001	<0.001	-
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	**1.8**	**1.7**	**5.4**	**0.045**	**1.3**	**0.014**	<0.007	**0.066**	**0.23**	**1.4**	**0.17**	**0.14**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW019_250501	MW019	Shallow	01 May 2025	SA04	**2.48**	**3.1**	**24.5**	**1.27**	**48**	**0.15**	**0.05**	**0.9**	**1.35**	**6.97**	**0.81**	**1.32**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW018_250502	MW018	Shallow	02 May 2025	SA04	**15.8**	**17.4**	**143**	**13.3**	**356**	**0.88**	<0.02	**4.8**	**7.99**	**45.2**	**5.13**	**9.29**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW057_250502	MW057	Shallow	02 May 2025	SA04	**1.56**	**2.26**	**4.72**	**0.09**	**1.45**	**0.03**	**0.03**	**0.1**	**0.3**	**1.59**	**0.17**	**0.17**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW204_250502	MW204	Shallow	02 May 2025	SA04	**12.2**	**13.9**	**98.6**	**8.48**	**264**	**1.17**	**0.22**	**3.5**	**5.16**	**24.2**	**2.84**	**5.98**	**0.06**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW017_180405	MW017	Shallow	05 Apr 2018	SA05	**7.5**	**12**	**49**	**0.82**	**6.1**	-	<0.01	**1.4**	**2.7**	**16**	**1.2**	**1.6**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	**9.3**	**20**	**59**	**1.1**	**9.7**	<0.015	<0.001	**0.77**	**2.9**	**18**	**1.6**	**2.3**	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	**0.002**	**0.004**	**0.052**	**0.003**	**0.25**	**0.001**	<0.001	**0.005**	**0.002**	**0.006**	**0.001**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	**0.6**	**0.69**	**1.6**	**0.029**	**0.33**	<0.001	<0.001	**0.02**	**0.089**	**0.54**	**0.05**	**0.047**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW017_250502	MW017	Shallow	02 May 2025	SA05	**4.59**	**5.12**	**43.9**	**0.87**	**7.45**	<0.02	<0.02	**1**	**1.78**	**9.51**	**0.93**	**1.43**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW205_250502	MW205	Shallow	02 May 2025	SA05	**0.59**	**0.49**	**1.82**	**0.02**	**0.36**	<0.02	<0.02	<0.1	**0.11**	**0.63**	**0.05**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW212_250502	MW212	Shallow	02 May 2025	SA05	**0.03**	<0.02	**0.04**	<0.02	**0.02**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW007_180405	MW007	Shallow	05 Apr 2018	SA06	**0.03**	**0.04**	**0.22**	<0.01	**0.08**	-	<0.01	<0.05	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC229_180405	MW016	Shallow	05 Apr 2018	SA06	**0.26**	**0.34**	**3.94**	**0.2**	**13.9**	-	<0.05	<0.2	**0.19**	**1.23**	<0.05	**0.34**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	-
MW016_180405	MW016	Shallow	05 Apr 2018	SA06	**0.48**	**1.3**	**5.8**	**0.35**	**26**	-	<0.01	**0.17**	**0.32**	**2**	**0.21**	**0.37**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC129_180405	MW016	Shallow	05 Apr 2018	SA06	**0.78**	**2.4**	**9**	**0.58**	**47**	-	<0.01	**0.28**	**0.52**	**3.2**	**0.35**	**0.6**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW008_180406	MW008	Shallow	06 Apr 2018	SA06	**0.47**	**0.47**	**2.8**	**0.12**	**3.2**	-	<0.01	**0.1**	**0.19**	**0.82**	**0.07**	**0.12**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW015_180406	MW015	Shallow	06 Apr 2018	SA06	**1.9**	**3.9**	**21**	**1.8**	**86**	-	**0.06**	**0.72**	**1.6**	**5.6**	**0.7**	**1.5**	**0.04**	**0.02**	<0.01	<0.01	<0.01	<0.01	-
MW062_180406	MW062	Shallow	06 Apr 2018	SA06	**1.2**	**1.6**	**9.7**	**0.84**	**30**	-	**0.01**	**0.31**	**0.52**	**2.6**	**0.23**	**0.53**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW061_180412	MW061	Shallow	12 Apr 2018	SA06	**5.3**	**5.1**	**28**	**2.1**	**67**	-	<0.2	**3.4**	**4.3**	**19**	**2.6**	**4.5**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
MW104_181219	MW104	Shallow	19 Dec 2018	SA06	**0.4**	**0.63**	**4.5**	**0.33**	**13**	-	<0.01	**0.09**	**0.16**	**0.88**	**0.14**	**0.29**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	**0.22**	**0.25**	**2.7**	**0.12**	**10**	**0.032**	<0.0125	**0.1**	**0.18**	**0.64**	**0.095**	**0.24**	**0.007**	**0.003**	<0.001	<0.001	<0.001	<0.001	-
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	**0.31**	**0.37**	**5.1**	**0.2**	**19**	**0.071**	<0.025	**0.073**	**0.22**	**1.4**	**0.19**	**0.32**	**0.009**	**0.002**	<0.025	<0.001	<0.001	<0.001	-
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	**0.21**	**0.21**	**2.3**	**0.17**	**14**	**0.051**	<0.0125	**0.028**	**0.1**	**0.37**	**0.055**	**0.14**	**0.005**	**0.003**	<0.02	<0.001	<0.001	<0.001	
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	**0.13**	**0.25**	**2.1**	**0.15**	**3.9**	**0.013**	**0.002**	**0.028**	**0.16**	**0.74**	**0.091**	**0.15**	**0.004**	**0.006**	<0.001	<0.001	<0.001	<0.001	-
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	**0.074**	**0.1**	**0.72**	**0.057**	**1.8**	**0.006**	<0.001	**0.01**	**0.045**	**0.21**	**0.023**	**0.049**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	**0.013**	**0.013**	**0.079**	**0.003**	**0.16**	<0.001	<0.001	<0.005	**0.009**	**0.021**	**0.003**	**0.004**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	**0.46**	**0.41**	**3.7**	**0.11**	**0.15**	<0.001	<0.001	**0.036**	**0.08**	**0.39**	**0.049**	**0.085**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	**0.37**	**0.44**	**3.4**	**0.15**	**2.5**	**0.002**	<0.001	**0.05**	**0.15**	**0.89**	**0.056**	**0.11**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-

Table 3 – Groundwater Analytical Results V1

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW221_250501	MW221	Shallow	01 May 2025	SA06	**0.2**	**0.2**	**1.22**	**0.05**	**0.65**	<0.02	<0.02	<0.1	**0.05**	**0.25**	**0.02**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW007_250502	MW007	Shallow	02 May 2025	SA06	**0.5**	**0.67**	**3.56**	**0.1**	**0.2**	<0.02	<0.02	<0.1	**0.09**	**0.42**	**0.02**	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW015_250502	MW015	Shallow	02 May 2025	SA06	**0.25**	**0.31**	**3.35**	**0.2**	**9.03**	**0.08**	**0.02**	<0.1	**0.14**	**0.55**	**0.06**	**0.19**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW016_250502	MW016	Shallow	02 May 2025	SA06	**0.48**	**0.62**	**6.14**	**0.37**	**29.6**	**0.27**	**0.04**	**0.2**	**0.34**	**1.9**	**0.25**	**0.46**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW062_250502	MW062	Shallow	02 May 2025	SA06	**0.2**	**0.26**	**2.09**	**0.14**	**7.14**	**0.08**	**0.02**	<0.1	**0.08**	**0.36**	**0.06**	**0.13**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW104_250502	MW104	Shallow	02 May 2025	SA06	**0.23**	**0.25**	**2.31**	**0.15**	**6.71**	**0.02**	<0.02	**0.1**	**0.15**	**0.93**	**0.1**	**0.17**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW206_250502	MW206	Shallow	02 May 2025	SA06	**0.19**	**0.19**	**1.45**	**0.08**	**2.45**	<0.02	<0.02	<0.1	**0.08**	**0.37**	**0.04**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC102_250502	MW206	Shallow	02 May 2025	SA06	**0.19**	**0.22**	**1.51**	**0.08**	**2.46**	<0.02	<0.02	<0.1	**0.08**	**0.36**	**0.04**	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC202_250502	MW206	Shallow	02 May 2025	SA06	**0.21**	**0.22**	**1.9**	**0.08**	**3**	<0.01	<0.01	**0.05**	**0.08**	**0.42**	**0.05**	**0.09**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW211_250502	MW211	Shallow	02 May 2025	SA06	<0.02	<0.02	**0.03**	<0.02	**0.04**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW219_250502	MW219	Shallow	02 May 2025	SA06	**0.24**	**0.32**	**3.63**	**0.22**	**7.31**	<0.02	<0.02	**0.1**	**0.18**	**1.04**	**0.14**	**0.26**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC103_250502	MW219	Shallow	02 May 2025	SA06	**0.24**	-	**3.49**	-	**7.55**	-	-	**0.1**	**0.18**	**1.03**	**0.13**	**0.26**	-	-	-	-	-	-	-
0932_QC203_250502	MW219	Shallow	02 May 2025	SA06	**0.3**	**0.39**	**4.8**	**0.21**	**7.7**	<0.01	<0.01	**0.13**	**0.16**	**1.3**	**0.17**	**0.31**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW008_250505	MW008	Shallow	05 May 2025	SA06	**0.4**	**0.44**	**2.89**	**0.12**	**2.24**	<0.02	<0.02	<0.1	**0.15**	**0.73**	**0.06**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW054_180405	MW054	Shallow	05 Apr 2018	SA07	**1**	**1.3**	**4.7**	**0.25**	**3.7**	-	<0.01	**0.07**	**0.11**	**0.56**	**0.07**	**0.11**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW064_180412	MW064	Shallow	12 Apr 2018	SA07	**0.18**	**0.13**	**1.2**	**0.05**	**1.1**	-	<0.01	<0.05	**0.05**	**0.25**	**0.03**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	**0.14**	**0.21**	**1**	**0.058**	**0.97**	**0.002**	<0.001	**0.013**	**0.058**	**0.23**	**0.033**	**0.066**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	**0.29**	**0.3**	**1.71**	**0.08**	**1.72**	<0.02	<0.02	<0.1	**0.08**	**0.36**	**0.05**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	**0.29**	**0.3**	**1.71**	**0.08**	**1.72**	<0.02	<0.02	<0.1	**0.08**	**0.36**	**0.05**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW220_250501	MW220	Shallow	01 May 2025	SA07	**0.12**	**0.1**	**0.5**	<0.02	**0.22**	<0.02	<0.02	<0.1	<0.02	**0.04**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
MW102_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.02**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC120_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.02**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC221_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.02	<0.02	**0.03**	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW033_160517*	MW033	Shallow	17 May 2016	SA08	**0.14**	-	**0.12**	-	*<0.01*	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW058_160517*	MW058	Shallow	17 May 2016	SA08	<0.01	-	**0.01**	-	**0.01**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW032_160517*	MW032	Shallow	17 May 2016	SA08	**0.06**	-	**0.92**	-	**0.12**	-	<0.01	<0.05	**0.02**	**0.09**	**0.01**	**0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW031_160518*	MW031	Shallow	18 May 2016	SA08	<0.01	-	**0.06**	-	**0.14**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW031_180411	MW031	Shallow	11 Apr 2018	SA08	**0.02**	**0.03**	**0.29**	<0.01	**0.35**	-	<0.01	<0.05	**0.01**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW032_180411	MW032	Shallow	11 Apr 2018	SA08	**0.06**	**0.05**	**0.45**	**0.02**	**0.42**	-	<0.01	<0.05	**0.02**	**0.09**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW033_180411	MW033	Shallow	11 Apr 2018	SA08	**0.18**	**0.08**	**0.52**	<0.01	**0.05**	-	<0.01	<0.05	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW058_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.03**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC131_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.03**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC231_180411	MW058	Shallow	11 Apr 2018	SA08	<0.02	<0.02	<0.02	<0.02	**0.03**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
MW103_181219	MW103	Shallow	19 Dec 2018	SA08	**0.27**	**0.37**	**2.7**	**0.05**	**1.6**	-	<0.01	**0.06**	**0.11**	**0.99**	**0.05**	**0.09**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW033_200518*	MW033	Shallow	18 May 2020	SA08	**0.34**	**0.26**	**1.11**	<0.02	**0.07**	-	<0.02	<0.1	<0.02	**0.04**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	**0.15**	**0.18**	**1.2**	**0.019**	**1.8**	**0.003**	<0.003	**0.018**	**0.03**	**0.2**	**0.015**	**0.027**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	**0.062**	**0.061**	**0.42**	**0.05**	**1.5**	**0.005**	**0.002**	**0.023**	**0.026**	**0.074**	**0.023**	**0.13**	**0.012**	**0.003**	<0.001	<0.001	<0.001	<0.001	-
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	**0.18**	**0.08**	**0.44**	**0.006**	**0.019**	<0.001	<0.001	**0.024**	**0.009**	**0.012**	<0.002	**0.004**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW031_250505	MW031	Shallow	05 May 2025	SA08	**0.07**	**0.08**	**0.77**	<0.02	**2.07**	<0.02	<0.02	<0.1	<0.02	**0.07**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW032_250505	MW032	Shallow	05 May 2025	SA08	**0.06**	**0.03**	**0.29**	**0.02**	**1.38**	<0.02	<0.02	<0.1	<0.02	**0.05**	<0.02	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	**0.177**	**0.059**	**0.541**	**0.005**	**0.029**	-	<0.002	**0.05**	**0.015**	**0.015**	<0.002	**0.002**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	**0.18**	**0.07**	**0.51**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW058_250505	MW058	Shallow	05 May 2025	SA08	<0.02	<0.02	**0.01**	<0.02	**0.02**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW218_250505	MW218	Shallow	05 May 2025	SA08	**0.02**	<0.02	**0.02**	<0.02	**0.01**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05

Table 3 – Groundwater Analytical Results V1

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
MW035_180412	MW035	Shallow	12 Apr 2018	SA09	<0.01	<0.01	**0.06**	<0.01	**0.1**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	**0.007**	**0.009**	**0.051**	**0.002**	**0.07**	<0.001	<0.001	<0.005	**0.001**	**0.007**	<0.001	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW035_250512	MW035	Shallow	12 May 2025	SA09	<0.02	**0.03**	**0.19**	<0.02	**0.38**	<0.02	<0.02	<0.1	<0.02	**0.04**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW028_160518*	MW028	Shallow	18 May 2016	SA10	**0.19**	-	**1**	-	**0.13**	-	<0.01	<0.05	**0.07**	**0.26**	**0.04**	**0.05**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW028_180406	MW028	Shallow	06 Apr 2018	SA10	**0.54**	**0.7**	**5.9**	**0.37**	**14**	-	<0.01	**0.14**	**0.23**	**0.89**	**0.13**	**0.3**	**0.14**	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW029_180406	MW029	Shallow	06 Apr 2018	SA10	**0.08**	**0.09**	**0.86**	**0.04**	**2.4**	-	<0.01	<0.05	**0.06**	**0.13**	**0.03**	**0.04**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	-

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW167_200922*	MW167	Shallow	22 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**44.3**	**48.9**	**51.6**
0932_MW150_S_200929	MW150	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**84.5**	**116**	**126**
0932_MW152_200929*	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**370**	**443.8**	**470.4**
0932_MW152_S_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**174**	**240**	**262**
0932_QC102_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**187**	**250**	**272**
0932_MW166_200929*	MW166	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**92.6**	**120**	**129**
0932_MW167_200929*	MW167	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**48**	**53.2**	**56.5**
0932_MW168_200929*	MW168	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.21**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**171**	**234**	**254**
0932_MW169_200929*	MW169	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**78**	**92.6**	**98.7**
0932_MW150_210526*	MW150	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**108**	**132**	**140**
0932_QC106_210526	MW152	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**291**	**356**	**376**
0932_MW152_210526*	MW152	Shallow	26 May 2021	Off-base (East)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**290**	**355.8**	**376.04**
0932_MW152_210526	MW152	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**311**	**376**	**401**
0932_MW166_210526*	MW166	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**50.7**	**64.8**	**69.5**
0932_MW167_210526*	MW167	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**55.5**	**63.7**	**67**
0932_MW168_210526*	MW168	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.23**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**220**	**271**	**292**
0932_MW169_210526*	MW169	Shallow	26 May 2021	Off-base (East)	<0.01	<0.05	<0.01	<0.01	**0.05**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**54**	**65.15**	**70.48**
0932_MW169_210526	MW169	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**51.3**	**62**	**65.6**
0932_QC102_210526	MW169	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**55.4**	**65.8**	**69.2**
0932_MW150_210729*	MW150	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**172**	**174**	**175**
0932_MW152_210729*	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.01	**0.08**	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**270**	**326.68**	**350.91**
0932_QC102_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**292**	**352**	**368**
0932_MW152_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.03	<0.09	<0.09	<0.03	<0.09	**304**	**365**	**383**
0932_MW166_210729*	MW166	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.2**	**44.7**	**47.1**
0932_MW167_210729*	MW167	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**50.4**	**58.4**	**61.3**
0932_MW168_210729*	MW168	Shallow	29 Jul 2021	Off-base (East)	<0.05	**0.1**	<0.05	<0.05	**0.21**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**222**	**267**	**280**
0932_MW169_210729*	MW169	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**36.3**	**41.8**	**43.8**
0932_QC105_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**136**	**180**	**194**
0932_MW152_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**135**	**177**	**191**
0932_QC205_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.2	<0.05	<0.05	<0.2	<0.05	<0.05	**169**	**217.7**	**229.83**
0932_MW166_230404	MW166	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.1**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**50**	**61.2**	**65.1**
0932_MW167_230404	MW167	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.6**	**49.6**	**52.4**
0932_MW168_230404	MW168	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.39**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**44.4**	**52.3**	**55.9**
0932_MW169_230404	MW169	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.1**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**23.1**	**25.7**	**27.2**
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.034**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**34**	**42.88**	**46.421**
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.09**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**50**	**58.8**	**62.822**
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.26**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**47.5**	**50.348**	**53.688**
0932_QC201_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.02	<0.05	<0.01	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**13.1**	**17.29**	**18.72**
0932_QC101_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.9**	**21.2**	**23.4**
0932_MW166_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**20.4**	**27.1**	**30.2**
0932_MW167_250506	MW167	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.11**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**40.2**	**48.7**	**53.2**
0932_MW168_250506	MW168	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.2**	**18.3**	**18.5**
MW009_180405	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.25**	**0.28**
MW026_180406	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.12**	**0.14**	**0.14**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.022**	**0.036**	**0.043**
0932_MW026_250502	MW026	Shallow	02 May 2025	On-base Other (Central west)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
MW056_180413	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.36**	**0.39**	**0.41**
MW110_181218	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**15.25**	**32.53**	**36.4**
0932_MW110_200930*	MW110	Shallow	30 Sep 2020	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**382**	**511**	**542**
0932_MW110_210524*	MW110	Shallow	24 May 2021	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**424**	**559**	**599**
0932_MW110_210730*	MW110	Shallow	30 Jul 2021	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**321**	**410**	**431**
0932_MW110_230330	MW110	Shallow	30 Mar 2023	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**145**	**184**	**198**
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**13.16**	**22.95**	**26.53**
0932_MW110_250512	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.5**	**21.4**	**24.2**
0932_MW043_D_200929	MW043	Deep	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.7**	**21.6**	**24.4**
0932_MW043_210525*	MW043	Deep	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_210730*	MW043	Deep	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_230330	MW043	Deep	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_250516	MW043	Deep	16 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW044_I_200929	MW044	Intermediate	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.8**	**22.3**	**25**
0932_MW044_210525*	MW044	Intermediate	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15**	**22.1**	**25.2**
0932_MW044_210730*	MW044	Intermediate	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.2**	**26.3**	**28.5**
0932_MW044_230330	MW044	Intermediate	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.6**	**19.6**	**22**
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**9.54**	**13.455**	**16.565**
0932_QC101_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.01**	**11.9**	**13.7**
0932_MW044_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.51**	**13.4**	**15.7**
0932_QC201_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**10.23**	**14.78**	**17.53**
0932_MW046_160517*	MW046	Shallow	17 May 2016	On-base Other (North of SA01)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW038_180413	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**8.86**	**15.13**	**16.41**
MW039_180413	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.42**	**11.64**	**12.88**
MW040_180413	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**51**	**65.01**	**69.64**
MW041_180413	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.59**	**2.63**	**2.72**
MW042_180413	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.38**	**0.64**	**0.7**
MW045_180413	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**40**	**45.16**	**46.65**
MW046_180413	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6.6**	**9.95**	**10.84**
0932_MW039_S_200921	MW039	Shallow	21 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.4**	**33.2**	**36.9**
0932_MW039_S_200929	MW039	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12**	**21.3**	**23.9**
0932_MW040_S_200929	MW040	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**70.2**	**93.2**	**101**
0932_MW041_200929*	MW041	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**38.5**	**62.7**	**69.1**
0932_MW042_200929*	MW042	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.68**	**12.4**	**14.1**
0932_MW045_200929*	MW045	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.5**	**36.3**	**37.6**
0932_MW039_210525*	MW039	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.6**	**23.6**	**26.7**
0932_MW040_210525*	MW040	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**41**	**53.5**	**57.7**
0932_MW041_210525*	MW041	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.69**	**1.62**	**1.72**
0932_MW042_210525*	MW042	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.11**	**7.29**	**8.39**
0932_MW045_210525*	MW045	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.3**	**38.8**	**41.6**
0932_MW039_210730*	MW039	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**13.6**	**24.3**	**25.8**
0932_MW040_210730*	MW040	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**80**	**101**	**106**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW041_210730*	MW041	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.38**	**1.15**	**1.21**
0932_MW042_210730*	MW042	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.84**	**11.8**	**12.9**
0932_MW045_210730*	MW045	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**36.4**	**39.6**	**40.8**
0932_MW039_230330	MW039	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.7**	**15.8**	**17.7**
0932_MW040_230330	MW040	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**48.4**	**59.9**	**64.5**
0932_MW041_230330	MW041	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.6**	**3.82**	**3.97**
0932_MW042_230330	MW042	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**0.83**	**0.96**
0932_MW045_230330	MW045	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.4**	**48.2**	**50.9**
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**7.35**	**16.21**	**19.479**
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**36.9**	**74.6**	**98.29**
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.65**	**1.736**	**2.034**
0932_QC201_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.0012**	-	**0.0012**
0932_QC101_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.133**	**0.221**	**0.265**
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**48**	**53.06**	**55.527**
0932_MW038_250512	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.9**	**9.56**	**10.9**
0932_MW039_250512	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28.2**	**53.2**	**59.8**
0932_MW041_250512	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**1.43**	**1.65**
0932_MW042_250512	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.45**	**2.22**	**2.56**
0932_MW045_250512	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**32**	**36.4**	**38.2**
MW006_180406	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
MW001_180409	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.09**	**0.14**	**0.14**
MW002_180409	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.67**	**1.89**	**1.93**
MW005_180411	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**9.5**	**14.11**	**15.48**
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.153**	**0.214**	**0.232**
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	<0.001	<0.005	<0.001	<0.0125	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**17.2**	**19.967**	**21.899**
0932_MW002_250505	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.12**	**0.12**
0932_MW005_250506	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.04**	**8.18**	**8.81**
0932_MW027_160518*	MW027	Shallow	18 May 2016	On-base Other (North of SA05/SA06)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW027_180518	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.01**	<0.05	<0.1
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.061**	**0.082**	**0.091**
0932_QC102_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.064**	**0.084**	**0.092**
0932_QC202_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.074**	-	**0.1**
0932_MW027_250502	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW100_200518*	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.12**	**0.13**	**0.14**
QC101_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.18**	**0.18**	**0.21**
MW100_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.21**	**0.23**	**0.26**
MW108_181218	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.09**	<0.1
MW030_180518	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW063_180518	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
0932_MW101_200518*	MW101	Shallow	18 May 2020	On-base Other (Northwest of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW107_181218	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**44**	**56.9**	**59.92**
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	<0.001	<0.02	<0.001	<0.001	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**34**	**48.08**	**52.941**
0932_MW107_250506	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.6**	**52.9**	**59.8**

Table 3 – Groundwater Analytical Results V1

	PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														

Field ID	Location Code	Aquifer	Date	Monitoring Zone											
0932_MW049_160517*	MW049	Shallow	17 May 2016	On-base Other (South of SA07)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW049_180412	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.25**	**0.28**	**0.3**
QC217_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.39**	**0.39**	**0.39**
MW109_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.43**	**0.44**	**0.45**
QC116_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.45**	**0.46**	**0.47**
MW106_181219	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	**0.78**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**165**	**465.5**	**487.48**
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	<0.15	<0.15	<0.15	<0.001	**2.7**	<0.15	<0.15	<0.005	<0.005	<0.005	<0.005	**1,537**	**2,894**	**3,090.67**
0932_MW106_250506	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	<0.05	<0.05	<0.05	<0.05	**2.13**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**1,120**	**2,300**	**2,510**
MW112_181219	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.62**	**0.87**	**0.93**
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.108**	**0.141**	**0.153**
0932_MW112_250505	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	**0.08**	**0.08**
MW025_180413	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**12.6**	**16.64**	**17.69**
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.118**	**0.435**	**0.506**
0932_MW025_250512	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.41**	**0.47**
MW051_180410	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4**	**4.74**	**4.93**
MW052_180412	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.68**	**0.8**	**0.85**
MW105_181218	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**7.1**	**10.08**	**10.74**
MW113_181218	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.26**	**0.28**
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.3**	**22.15**	**25.11**
0932_MW105_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.6**	**21.1**	**24.3**
0932_QC201_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.5**	**22.43**	**25.252**
0932_QC101_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**16**	**22.5**	**25.8**
0932_MW216_250505	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.34**	**1.56**	**1.66**
0932_MW215_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.27**	**0.3**	**0.32**
0932_QC101_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	**0.33**	**0.36**
0932_QC201_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.37**	**0.42**	**0.47**
MW037_180412	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**32.3**	**35.75**	**36.88**
MW047_180412	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**16.3**	**21.72**	**23.34**
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**7.5**	**8.669**	**9.416**
0932_MW047_250506	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.53**	**7.68**	**8.37**
MW020_180410	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.25**	**1.33**	**1.35**
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.93**	**2.146**	**2.217**
0932_QC101_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.95**	**0.99**	**0.99**
0932_MW020_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.96**	**1.02**	**1.02**
0932_QC201_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.35**	**1.43**	**1.44**
MW013_180406	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	<0.001	**0.034**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.035**	**0.093**	**0.097**
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.015**	**0.017**	**0.017**
0932_MW189_200930*	MW189	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW190_200930*	MW190	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW191_200930*	MW191	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1**	**1.83**	**2.03**
0932_MW194_D_200930	MW194	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC105_200930	MW194	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW194_200930*	MW194	Deep	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.1
0932_MW195_200930*	MW195	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_201001*	MW193	Deep	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_201001*	MW196	Deep	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_210524*	MW189	Deep	24 May 2021	SA01	<0.05	**0.09**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.93**	**2.39**	**2.46**
0932_MW190_210524*	MW190	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW191_210524*	MW191	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.98**	**1.89**	**2**
0932_MW195_210524*	MW195	Deep	24 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.01**	<0.05	<0.1
0932_MW195_210524	MW195	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC101_210524	MW195	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_210525*	MW193	Deep	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_210525*	MW196	Deep	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW194_210526	MW194	Deep	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW195_210728*	MW195	Deep	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW191_210729*	MW191	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW194_210729*	MW194	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_210729*	MW196	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_210730*	MW189	Deep	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW190_210730*	MW190	Deep	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_210803*	MW193	Deep	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
0932_MW193_210803	MW193	Deep	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC100_230328	MW194	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.3**	**0.33**
0932_MW194_230328	MW194	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.32**	**0.56**	**0.63**
0932_QC200_230328	MW194	Deep	28 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.32**	**0.37**
0932_MW196_230328	MW196	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_230329	MW193	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC102_230329	MW193	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC202_230329	MW193	Deep	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_MW195_230329	MW195	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_230330	MW189	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW190_230330	MW190	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW191_230330	MW191	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.25**	**0.25**
0932_MW190_250516	MW190	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_MW193_250516	MW193	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW194_250516	MW194	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.3**	**0.4**	**0.44**
0932_MW196_250516	MW196	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW195_250519	MW195	Deep	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW180_200922*	MW180	Intermediate	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.14**	**0.18**	**0.18**
0932_MW172_200930*	MW172	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**10**	**13.9**	**15.3**
0932_MW174_200930*	MW174	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	**1.09**	**1.28**
0932_MW176_200930*	MW176	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**10.3**	**15.4**	**16.8**
0932_MW184_200930*	MW184	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**11.8**	**19.7**	**21.2**
0932_MW185_200930*	MW185	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**113**	**164**	**179**
0932_MW178_201001*	MW178	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**25.5**	**45.4**	**49.3**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW179_201001*	MW179	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.09**	**0.09**	**0.09**
0932_MW180_201001*	MW180	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.26**	**0.26**
0932_QC103_201001	MW181	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.3**	**0.34**
0932_MW181_I_201001	MW181	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.43**	**0.47**
0932_MW181_201001*	MW181	Intermediate	01 Oct 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.6**	**0.74**
0932_MW182_201001*	MW182	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.9**	**1.57**	**1.63**
0932_MW183_201001*	MW183	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.55**	**0.62**
0932_MW186_I_201001	MW186	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**6.16**	**8.82**	**9.86**
0932_QC107_201001	MW186	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**6.34**	**9.11**	**10.1**
0932_MW186_201001*	MW186	Intermediate	01 Oct 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**7.3**	**10.28**	**11.76**
0932_MW172_210524*	MW172	Intermediate	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.3**	**17.8**	**19.3**
0932_MW182_210524*	MW182	Intermediate	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.92**	**4.25**	**4.44**
0932_MW184_210524	MW184	Intermediate	24 May 2021	SA01	<0.05	**0.11**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.1**	**21.2**	**22.7**
0932_QC105_210524	MW184	Intermediate	24 May 2021	SA01	<0.05	**0.09**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.1**	**21**	**22.8**
0932_MW184_210524*	MW184	Intermediate	24 May 2021	SA01	<0.01	**0.17**	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**13.4**	**23.49**	**26.02**
0932_MW174_210525*	MW174	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.25**	**0.87**	**1.08**
0932_MW178_210525	MW178	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.6**	**38**	**41**
0932_MW179_210525*	MW179	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.2**	**0.2**	**0.2**
0932_MW181_210525*	MW181	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.47**	**0.55**
0932_MW183_210525*	MW183	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.67**	**0.81**
0932_MW186_210525*	MW186	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.53**	**13.8**	**17.1**
0932_MW176_210526*	MW176	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.74**	**5.31**	**5.46**
0932_MW180_210526*	MW180	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.06**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**163**	**229**	**243**
0932_MW185_210526*	MW185	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**138**	**193**	**213**
0932_MW172_210728*	MW172	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.6**	**17.7**	**19.6**
0932_MW185_210728	MW185	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.03	<0.09	<0.03	<0.09	<0.09	<0.03	<0.09	**81.9**	**118**	**128**
0932_QC101_210728	MW185	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**92.4**	**131**	**141**
0932_MW185_210728*	MW185	Intermediate	28 Jul 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**136**	**189.5**	**214.34**
0932_MW176_210729*	MW176	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**11.9**	**17.3**	**18.2**
0932_MW179_210729*	MW179	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW186_210729*	MW186	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.97**	**11.7**	**12.5**
0932_MW181_210730*	MW181	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.43**	**0.46**
0932_MW182_210730*	MW182	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.92**	**1.61**	**1.71**
0932_MW183_210730*	MW183	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.88**	**1.01**
0932_MW184_210730*	MW184	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.71**	**3.01**	**3.31**
0932_MW174_210803*	MW174	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.33**	**1.02**	**1.15**
0932_MW178_210803	MW178	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.7**	**36.8**	**39**
0932_QC106_210803	MW178	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27.1**	**40.2**	**42.5**
0932_MW178_210803*	MW178	Intermediate	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**40.1**	**55.94**	**62.16**
0932_MW180_210803	MW180	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.24**	**0.24**
0932_MW180_210803*	MW180	Intermediate	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.23**	**0.33**	**0.35**
0932_MW172_230328	MW172	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.73**	**11.3**	**12.6**
0932_MW174_230328	MW174	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.24**	**0.43**	**0.48**
0932_MW179_230328	MW179	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.15**	**0.15**	**0.15**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW181_230328	MW181	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.36**	**0.4**
0932_MW182_230328	MW182	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.6**	**2.61**	**2.78**
0932_MW186_230328	MW186	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.2**	**11.8**	**13.2**
0932_MW178_230329	MW178	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**21.8**	**33.2**	**37**
0932_QC103_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.46**	**0.52**	**0.55**
0932_MW180_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.47**	**0.54**	**0.54**
0932_QC203_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.58**	**0.71**	**0.76**
0932_MW183_230329	MW183	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.72**	**0.8**
0932_QC101_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**102**	**141**	**156**
0932_QC201_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**109**	**154.8**	**173.84**
0932_MW185_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**107**	**144**	**158**
0932_MW176_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.12**	**5.85**	**6.11**
0932_QC104_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.38**	**6.19**	**6.47**
0932_QC204_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**9**	**11.44**	**12.47**
0932_MW184_230330	MW184	Intermediate	30 Mar 2023	SA01	<0.05	**0.12**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.19**	**14.3**	**15.6**
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**10.85**	**15.73**	**18.391**
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.292**	**1.288**	**1.709**
0932_QC204_241206	MW179	Intermediate	06 Dec 2024	SA01	<0.0010	**0.00052**	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.15**	-	**0.19**
0932_QC104_241206	MW179	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.225**	**0.284**	**0.303**
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.254**	**0.314**	**0.33**
0932_QC105_241206	MW184	Intermediate	06 Dec 2024	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**53**	**82.26**	**89.86**
0932_QC205_241206	MW184	Intermediate	06 Dec 2024	SA01	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**12**	-	**20**
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**13.9**	**21.55**	**24.057**
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.12	<0.12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**86**	**89.78**	**92.27**
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.42**	**0.547**	**0.589**
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.25**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**29**	**37.27**	**40.2**
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.032**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**66**	**87.71**	**95.722**
0932_MW172_250506	MW172	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.7**	**18.4**	**21.1**
0932_MW174_250506	MW174	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.34**	**1.33**	**1.72**
0932_MW179_250506	MW179	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.12**	**0.12**
0932_MW180_250506	MW180	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.37**	**0.47**	**0.5**
0932_MW182_250506	MW182	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**23.7**	**31.1**	**33.4**
0932_MW183_250506	MW183	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.76**	**0.96**
0932_MW184_250506	MW184	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.51**	**7.1**	**7.78**
0932_MW185_250506	MW185	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**45.2**	**46.8**	**48.4**
0932_MW176_250516	MW176	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.46**	**5.03**	**5.28**
0932_MW178_250516	MW178	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19**	**29.2**	**32.6**
0932_MW181_250516	MW181	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.48**	**0.59**
0932_MW186_250519	MW186	Intermediate	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.71**	**11.9**	**13.8**
0932-PCMB19	MW060	Shallow	18 May 2016	SA01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_QC201_200922	MW123	Shallow	22 Sep 2020	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**197**	**230.7**	**244.9**
0932_QC101_200922	MW123	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.28**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**151**	**182**	**191**
0932_MW123_S_200922	MW123	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.3**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**155**	**187**	**196**
0932_MW154_200922*	MW154	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.65**	**9.29**	**10.3**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW142_200924*	MW142	Shallow	24 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**479**	**548**	**575**
0932_QC106_200930	MW114	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**34.3**	**39.7**	**42.3**
0932_MW114_S_200930	MW114	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**34.1**	**39.8**	**42.6**
0932_MW114_200930*	MW114	Shallow	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**46**	**53.72**	**57.74**
0932_MW117_200930*	MW117	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11	**41.5**	**52.7**	**54.4**
0932_MW119_200930*	MW119	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**121**	**166**	**174**
0932_MW121_200930*	MW121	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**29.9**	**35**	**36.9**
0932_MW122_200930*	MW122	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**486**	**572**	**604**
0932_MW123_200930*	MW123	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**183**	**226**	**238**
0932_MW125_200930*	MW125	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**281**	**371**	**396**
0932_MW127_200930*	MW127	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.11**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**72.2**	**95.7**	**101**
0932_MW129_200930*	MW129	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**4.87**	**6.56**	**7.27**
0932_MW130_200930*	MW130	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**5**	**6.75**	**7.55**
0932_MW133_200930*	MW133	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11	**27.9**	**32.8**	**34.4**
0932_MW140_200930*	MW140	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**32.8**	**39**	**41**
0932_MW141_S_200930	MW141	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**86.1**	**92**	**95.4**
0932_MW142_200930*	MW142	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**261**	**310**	**327**
0932_MW154_200930*	MW154	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**5.6**	**7.46**	**8.12**
0932_MW159_200930*	MW159	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**7.15**	**19.3**	**21.4**
0932_MW161_S_200930	MW161	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.79**	**2.84**	**2.99**
0932_QC104_200930	MW161	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.85**	**2.86**	**3**
0932_MW161_200930*	MW161	Shallow	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.14**	**3.91**	**4.41**
0932_MW120_201001*	MW120	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**151**	**218**	**232**
0932_MW134_201001*	MW134	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.25**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**132**	**164**	**173**
0932_MW137_201001*	MW137	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.12**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**160**	**195**	**207**
0932_MW156_201001*	MW156	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**20.2**	**23.9**	**25.3**
0932_MW157_201001*	MW157	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.32**	**0.86**	**0.93**
0932_MW158_201001*	MW158	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**45.5**	**75.2**	**82**
0932_MW160_201001*	MW160	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**28.9**	**43.5**	**48.7**
0932_MW120_210524*	MW120	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**100**	**146**	**157**
0932_MW122_210524*	MW122	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**602**	**690**	**730**
0932_MW129_210524*	MW129	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.37**	**10.5**	**11.6**
0932_MW133_210524*	MW133	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.6**	**23.7**	**25.7**
0932_MW134_210524*	MW134	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.06**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.8**	**43.8**	**46.2**
0932_MW141_210524*	MW141	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**91.8**	**98.7**	**103**
0932_MW142_210524*	MW142	Shallow	24 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	**0.1**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**300**	**361.9**	**382.6**
0932_QC104_210524	MW142	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**320**	**379**	**400**
0932_MW142_210524	MW142	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**330**	**393**	**418**
0932_MW157_210524*	MW157	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.48**	**1.34**	**1.4**
0932_MW159_210524*	MW159	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.8**	**22.6**	**25.4**
0932_MW161_210524*	MW161	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1**	**3.55**	**3.69**
0932_MW130_210525	MW130	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.4**	**18.4**	**21.7**
0932_MW156_210525*	MW156	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.8**	**48.3**	**52.3**
0932_MW158_210525*	MW158	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.8**	**35.8**	**38.3**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW160_210525	MW160	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.7	34.8	39.4
0932_QC103_210526	MW114	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	35.4	41.5	44.6
0932_MW114_210526*	MW114	Shallow	26 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	39	46.11	49.42
0932_MW114_210526	MW114	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	38.5	44.4	47.2
0932_MW117_210526*	MW117	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	43.7	54	55.7
0932_MW119_210526*	MW119	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.36	0.36
0932_MW121_210526*	MW121	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	33.5	46.4	49
0932_MW123_210526*	MW123	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.24	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	235	280	297
0932_MW125_210526*	MW125	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	285	388	424
0932_MW137_210526*	MW137	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.15	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	154	186	195
0932_MW140_210526*	MW140	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	34.3	41.1	43.7
0932_MW154_210526*	MW154	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	7.33	10	10.9
0932_MW114_210728*	MW114	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.1	45.8	49.2
0932_MW117_210728*	MW117	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.4	48.5	50.3
0932_MW129_210728*	MW129	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.48	9.28	10.3
0932_MW140_210728*	MW140	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30	36.5	39.4
0932_MW141_210728*	MW141	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	102	108	112
0932_MW159_210728*	MW159	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.9	24.6	28.2
0932_MW122_210729*	MW122	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.07	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	753	844	877
0932_MW130_210729*	MW130	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.7	20.6	22.3
0932_MW142_210729*	MW142	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.07	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	555	623	656
0932_MW156_210729*	MW156	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.8	29.7	30.9
0932_MW158_210729*	MW158	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.9	22.1	23.2
0932_MW119_210730*	MW119	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.06	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	84.8	115	120
0932_MW121_210730*	MW121	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.7	41.9	43.2
0932_MW125_210730*	MW125	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.05	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	283	364	385
0932_MW134_210730*	MW134	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30.9	40.5	41.9
0932_MW137_210730*	MW137	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.17	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	135	161	167
0932_MW160_210730*	MW160	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.1	33.2	36.6
0932_MW161_210730*	MW161	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56	2.29	2.33
0932_MW120_210803*	MW120	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	100	147	154
0932_MW123_210803*	MW123	Shallow	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	290	334.1	352.49
0932_MW123_210803	MW123	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.25	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	185	230	240
0932_QC105_210803	MW123	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	195	239	251
0932_MW133_210803*	MW133	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.4	22.8	24.3
0932_MW154_210803*	MW154	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.08	12.4	13.2
0932_MW157_210803*	MW157	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.98	1.01
0932_MW129_230328	MW129	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.2	15.7	17.5
0932_MW130_230328	MW130	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.5	18.8	21.2
0932_MW134_230328	MW134	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	0.44	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.3	38	40.5
0932_MW114_230329	MW114	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	35.7	41.4	45.8
0932_MW119_230329	MW119	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	0.21	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	77.3	101	107
0932_MW120_230329	MW120	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	90.8	124	133
0932_MW121_230329	MW121	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8	26.4	28.3

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW125_230329	MW125	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**202**	**260**	**280**
0932_MW137_230329	MW137	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.17**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**86.6**	**103**	**109**
0932_MW140_230329	MW140	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**16.9**	**23.6**	**26.5**
0932_MW141_230329	MW141	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**115**	**122**	**126**
0932_MW156_230329	MW156	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28.6**	**34.1**	**36.6**
0932_MW158_230329	MW158	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**44.7**	**53.5**	**57.4**
0932_MW159_230329	MW159	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.72**	**15.7**	**18.1**
0932_MW161_230329	MW161	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.59**	**3.82**	**4.26**
0932_MW117_230330	MW117	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**25.5**	**33.7**	**35.5**
0932_MW122_230330	MW122	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.16**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**251**	**282**	**296**
0932_MW123_230330	MW123	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.33**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**164**	**214**	**237**
0932_MW142_230330	MW142	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**351**	**393**	**422**
0932_MW157_230330	MW157	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.7**	**1.33**	**1.44**
0932_MW160_230330	MW160	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.2**	**24.8**	**28.9**
0932_MW133_230331	MW133	Shallow	31 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**20.9**	**24.5**	**26.6**
0932_MW154_230331	MW154	Shallow	31 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12**	**17**	**19.2**
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.06	<0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**79**	**107.2**	**115.3**
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**9.8**	**15.46**	**18.5**
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.0125	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**21.1**	**26.53**	**29.22**
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**117**	**155.9**	**177.4**
0932_QC103_241206	MW141	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**121**	**167.4**	**187.3**
0932_QC203_241206	MW141	Shallow	06 Dec 2024	SA01	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**140**	-	**210**
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**56**	**78.75**	**84.27**
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**15.79**	**26.98**	**32.39**
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.034**	**0.038**	**0.038**
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.09**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1,400**	**1,854**	**1,987.09**
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	<0.001	**0.007**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3.9**	**5.403**	**5.802**
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**24.94**	**31.88**	**35.382**
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**85**	**108.56**	**119.123**
0932_MW119_250506	MW119	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.52**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**139**	**184**	**200**
0932_MW120_250506	MW120	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.1**	**48**	**52.9**
0932_MW125_250506	MW125	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.09**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**96.8**	**118**	**129**
0932_MW129_250506	MW129	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.47**	**15.2**	**17.9**
0932_QC102_250506	MW133	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.3**	**22**	**24.2**
0932_MW133_250506	MW133	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.8**	**22.4**	**24.5**
0932_QC202_250506	MW133	Shallow	06 May 2025	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**18.1**	**21.21**	**23.14**
0932_MW134_250506	MW134	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.04**	**3.49**	**3.87**
0932_MW141_250506	MW141	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**84.3**	**126**	**146**
0932_MW142_250506	MW142	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**98.8**	**104**	**108**
0932_MW154_250506	MW154	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.7**	**20.3**	**23.2**
0932_MW158_250506	MW158	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**60.1**	**74.1**	**81.7**
0932_MW160_250506	MW160	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.2**	**26.3**	**32.1**
0932_QC103_250506	MW160	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.3**	**26.7**	**32.9**
0932_QC203_250506	MW160	Shallow	06 May 2025	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**16.8**	**30.18**	**37.26**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW121_250516	MW121	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28**	**39**	**42**
0932_MW127_250516	MW127	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.48**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**105**	**147**	**159**
0932_MW137_250516	MW137	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**131**	**172**	**184**
0932_MW157_250516	MW157	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.57**	**1.8**	**2.21**
0932_MW161_250516	MW161	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.59**	**2.59**	**3.27**
0932_MW114_250519	MW114	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10**	**10.2**	**10.4**
0932_MW117_250519	MW117	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.5**	**52.5**	**58.6**
0932_MW122_250519	MW122	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**218**	**244**	**257**
0932_PW139_250519	MW139	Shallow	19 May 2025	SA01	<0.001	**0.008**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.84**	**0.911**	**0.933**
0932_MW140_250519	MW140	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27**	**33.6**	**37.2**
0932_PW140_250520	MW140	Shallow	20 May 2025	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.439**	**0.477**	**0.49**
0932-F03MW	MW036	Unknown	18 May 2016	SA01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW034_160517*	MW034	Shallow	17 May 2016	SA02	<0.01	<0.05	<0.01	-	<0.05	<0.05			<0.05			-	-	-
MW021_180409	MW021	Shallow	09 Apr 2018	SA02	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.74**	**1.91**	**1.98**
MW034_180409	MW034	Shallow	09 Apr 2018	SA02	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.43**	**0.45**	**0.45**
MW022_180410	MW022	Shallow	10 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	**0.61**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**250**	**300.8**	**314.81**
MW023_180411	MW023	Shallow	11 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**400**	**491.8**	**536.4**
QC130_180411	MW023	Shallow	11 Apr 2018	SA02	<0.2	**0.24**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**410**	**501.64**	**527.64**
QC230_180411	MW023	Shallow	11 Apr 2018	SA02	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**79.1**	**94.9**	**98.5**
MW024_180411	MW024	Shallow	11 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**249**	**301**	**316.8**
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.91**	**1.02**	**1.083**
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.233**	**0.245**	**0.251**
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	**0.41**	<0.005	**0.007**	<0.005	<0.005	<0.005	<0.005	**61.2**	**66.357**	**68.172**
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	**0.001**	<0.3	<0.3	<0.001	**0.25**	<0.005	**0.008**	<0.005	<0.005	<0.005	<0.005	**740**	**871.3**	**914.859**
0932_MW021_250506	MW021	Shallow	06 May 2025	SA02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.91**	**0.97**	**0.97**
0932_MW023_250506	MW023	Shallow	06 May 2025	SA02	<0.05	**0.07**	<0.05	<0.05	**0.12**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**237**	**295**	**312**
0932_MW034_250506	MW034	Shallow	06 May 2025	SA02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.17**	**0.17**
0932_MW022_250508	MW022	Shallow	08 May 2025	SA02	<0.05	**0.08**	<0.05	<0.05	**0.11**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**35.8**	**40.5**	**42**
0932_MW201_250508	MW201	Shallow	08 May 2025	SA02	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.879**	**1.46**	**1.51**
MW003_180409	MW003	Shallow	09 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.19**	**0.23**	**0.25**
MW004_180410	MW004	Shallow	10 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.26**	**0.33**	**0.35**
MW010_180411	MW010	Shallow	11 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.09**	**0.11**	**0.12**
MW011_180412	MW011	Shallow	12 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.1
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.074**	**0.096**	**0.108**
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.07**	**0.092**	**0.104**
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.039**	**0.05**	**0.056**
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.025**	**0.047**	**0.053**
0932_QC201_241206	MW203	Shallow	06 Dec 2024	SA03	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.036**	-	**0.047**
0932_QC101_241206	MW203	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.032**	**0.042**	**0.046**
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.034**	**0.042**	**0.044**
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.06**	**0.06**
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.003	<0.007	<0.003	<0.007	<0.007	<0.003	<0.007	**0.055**	**0.098**	**0.103**
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.037**	**0.059**	**0.062**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW004_250505	MW004	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_QC102_250505	MW203	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.06**	<0.1
0932_MW203_250505	MW203	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	**0.08**	**0.08**
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.023**	**0.031**	**0.034**
MW019_180405	MW019	Shallow	05 Apr 2018	SA04	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**239**	**283.4**	**301.7**
MW018_180406	MW018	Shallow	06 Apr 2018	SA04	<0.01	**1**	<0.01	<0.01	**0.71**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1,260**	**#######**	**1,575.31**
MW057_180406	MW057	Shallow	06 Apr 2018	SA04	<0.01	**0.06**	**0.15**	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6.6**	**8.87**	**10.02**
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	**0.002**	**0.31**	<0.125	<0.001	**0.62**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**730**	**836.61**	**885.042**
0932_MW019_241205	MW019	Shallow	05 Dec 2024	SA04	<0.001	<0.0625	<0.001	<0.001	**0.053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**97**	**112.75**	**118.713**
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	<0.010	**0.028**	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**100**		**130**
0932_QC101_241205	MW019	Shallow	05 Dec 2024	SA04	<0.001	<0.125	<0.001	<0.001	**0.055**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**103**	**118.92**	**125.075**
0932_MW204_241205	MW204	Shallow	05 Dec 2024	SA04	<0.001	**0.016**	<0.001	<0.001	**0.082**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**38.6**	**43.495**	**45.932**
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	<0.001	**0.054**	**0.082**	**0.002**	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**6.7**	**10.642**	**13.175**
0932_MW019_250501	MW019	Shallow	01 May 2025	SA04	<0.05	<0.05	<0.05	<0.05	**0.09**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**72.5**	**86.3**	**91.8**
0932_MW018_250502	MW018	Shallow	02 May 2025	SA04	<0.05	**0.33**	<0.05	<0.05	**0.38**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**499**	**588**	**627**
0932_MW057_250502	MW057	Shallow	02 May 2025	SA04	<0.05	**0.07**	**0.09**	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.17**	**10.2**	**13.2**
0932_MW204_250502	MW204	Shallow	02 May 2025	SA04	<0.05	**0.06**	<0.05	<0.05	**0.38**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**363**	**416**	**446**
MW017_180405	MW017	Shallow	05 Apr 2018	SA05	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**55.1**	**85.5**	**98.32**
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**68.7**	**103.57**	**130.57**
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.302**	**0.324**	**0.342**
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.93**	**3.276**	**4.235**
0932_MW017_250502	MW017	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**51.4**	**70.6**	**78.6**
0932_MW205_250502	MW205	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.18**	**3.6**	**4.34**
0932_MW212_250502	MW212	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.09**	**0.09**
MW007_180405	MW007	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.3**	**0.36**	**0.4**
QC229_180405	MW016	Shallow	05 Apr 2018	SA06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	**17.8**	**19.9**	**20.4**
MW016_180405	MW016	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.09**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**31.8**	**35.35**	**37.1**
QC129_180405	MW016	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.17**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**56**	**61.73**	**64.9**
MW008_180406	MW008	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6**	**7.77**	**8.36**
MW015_180406	MW015	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.39**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**107**	**119.02**	**125.23**
MW062_180406	MW062	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.06**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**39.7**	**45.09**	**47.61**
MW061_180412	MW061	Shallow	12 Apr 2018	SA06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**95**	**134.1**	**141.3**
MW104_181219	MW104	Shallow	19 Dec 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**17.5**	**19.46**	**20.42**
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	**0.087**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**12.7**	**14.175**	**14.824**
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	<0.001	**0.006**	**0.006**	<0.001	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**24.1**	**26.625**	**27.627**
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.3**	**17.203**	**17.806**
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	<0.001	**0.01**	<0.001	<0.001	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**6**	**7.309**	**7.797**
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	<0.001	**0.018**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**2.52**	**2.949**	**3.156**
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	<0.001	**0.02**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.239**	**0.309**	**0.331**
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3.85**	**4.95**	**5.7**
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**5.9**	**7.526**	**8.258**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW221_250501	MW221	Shallow	01 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.87**	**2.43**	**2.76**
0932_MW007_250502	MW007	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.76**	**4.82**	**5.78**
0932_MW015_250502	MW015	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.4**	**13.6**	**14.3**
0932_MW016_250502	MW016	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**35.7**	**39.4**	**41.1**
0932_MW062_250502	MW062	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.23**	**10.1**	**10.7**
0932_MW104_250502	MW104	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.02**	**10.7**	**11.2**
0932_MW206_250502	MW206	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.9**	**4.67**	**5.01**
0932_QC102_250502	MW206	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.97**	**4.72**	**5.09**
0932_QC202_250502	MW206	Shallow	02 May 2025	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.9**	**5.8**	**6.21**
0932_MW211_250502	MW211	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_MW219_250502	MW219	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.9**	**12.9**	**13.6**
0932_QC103_250502	MW219	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	**11**	**13**	-
0932_QC203_250502	MW219	Shallow	02 May 2025	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**12.5**	**14.87**	**15.62**
0932_MW008_250505	MW008	Shallow	05 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.13**	**6.56**	**7.26**
MW054_180405	MW054	Shallow	05 Apr 2018	SA07	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**8.4**	**10.32**	**11.87**
MW064_180412	MW064	Shallow	12 Apr 2018	SA07	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**2.3**	**2.85**	**3.03**
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	<0.001	**0.046**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.97**	**2.556**	**2.89**
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.43**	**4.3**	**4.8**
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.43**	**4.3**	**4.8**
0932_MW220_250501	MW220	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.72**	**0.89**	**1.03**
MW102_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
QC120_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
QC221_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.05**	**0.05**
0932_MW033_160517*	MW033	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW058_160517*	MW058	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW032_160517*	MW032	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW031_160518*	MW031	Shallow	18 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW031_180411	MW031	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.64**	**0.71**	**0.74**
MW032_180411	MW032	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.87**	**1.06**	**1.13**
MW033_180411	MW033	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.57**	**0.77**	**0.85**
MW058_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.05**	**0.05**	<0.1
QC131_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.05**	**0.05**	<0.1
QC231_180411	MW058	Shallow	11 Apr 2018	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.03**	**0.03**
MW103_181219	MW103	Shallow	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.3**	**5.87**	**6.29**
0932_MW033_200518*	MW033	Shallow	18 May 2020	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.18**	**1.56**	**1.82**
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3**	**3.44**	**3.697**
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	<0.001	**0.006**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.92**	**2.264**	**2.422**
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.459**	**0.688**	**0.904**
0932_MW031_250505	MW031	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.84**	**2.99**	**3.09**
0932_MW032_250505	MW032	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.67**	**1.88**	**1.93**
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.57**	**0.829**	**0.993**
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**0.72**	**0.92**
0932_MW058_250505	MW058	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.03**	**0.03**
0932_MW218_250505	MW218	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.05**	**0.05**

Table 3 – Groundwater Analytical Results V1

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
MW035_180412	MW035	Shallow	12 Apr 2018	SA09	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.16**	**0.16**	**0.16**
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	<0.001	**0.006**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.121**	**0.144**	**0.158**
0932_MW035_250512	MW035	Shallow	12 May 2025	SA09	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.57**	**0.63**	**0.66**
0932_MW028_160518*	MW028	Shallow	18 May 2016	SA10	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW028_180406	MW028	Shallow	06 Apr 2018	SA10	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**19.9**	**22.13**	**23.34**
MW029_180406	MW029	Shallow	06 Apr 2018	SA10	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**3.26**	**3.6**	**3.76**

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW167_200922*	MW167	Shallow	22 Sep 2020	Off-base (East)	**0.59**	**0.96**	**16.7**	**1.67**	**27.6**	-	<0.02	**0.1**	**0.24**	**2.07**	**0.19**	**1.42**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW150_200922*	MW150	Shallow	22 Sep 2020	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW150_S_200929	MW150	Shallow	29 Sep 2020	Off-base (East)	**5.1**	**8.03**	**50.8**	**2.35**	**33.7**	-	<0.02	**1.1**	**2.57**	**16.8**	**1.54**	**4.38**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW152_200929*	MW152	Shallow	29 Sep 2020	Off-base (East)	**14**	**18**	**170**	**3.9**	**200**	<0.1	<0.1	**1.9**	**2.8**	**36**	**3.1**	**16**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
0932_MW152_S_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	**13.3**	**18.7**	**102**	**3.42**	**72.2**	-	<0.02	**0.5**	**4.04**	**31.6**	**3.98**	**12.2**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC102_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	**11.7**	**18**	**108**	**3.72**	**78.7**	-	<0.02	**1.1**	**3.98**	**31.3**	**2.97**	**12.3**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW166_200929*	MW166	Shallow	29 Sep 2020	Off-base (East)	**4.71**	**6.77**	**55.9**	**2.43**	**36.7**	-	<0.02	**0.4**	**1.94**	**14.2**	**1.42**	**4.94**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW167_200929*	MW167	Shallow	29 Sep 2020	Off-base (East)	**0.64**	**1.24**	**16.1**	**2.09**	**31.9**	-	<0.02	**0.1**	**0.28**	**2.27**	**0.21**	**1.65**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW168_200929*	MW168	Shallow	29 Sep 2020	Off-base (East)	**7.33**	**13.3**	**111**	**6.75**	**59.8**	-	<0.02	**1.1**	**3.87**	**33.8**	**2.95**	**14.1**	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW169_200929*	MW169	Shallow	29 Sep 2020	Off-base (East)	**2.04**	**3.14**	**40**	**2.85**	**38**	-	<0.02	**0.3**	**0.86**	**6.67**	**0.6**	**4.18**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW150_210526*	MW150	Shallow	26 May 2021	Off-base (East)	**4.29**	**5.77**	**53**	**2.04**	**55.5**	-	<0.04	**0.3**	**1.82**	**12.6**	**0.95**	**3.73**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_QC106_210526	MW152	Shallow	26 May 2021	Off-base (East)	**10.7**	**14.8**	**162**	**5.11**	**129**	-	<0.04	**0.5**	**3.19**	**29.6**	**4.02**	**17**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW152_210526*	MW152	Shallow	26 May 2021	Off-base (East)	**10**	**12**	**160**	**3.9**	**130**	<0.01	<0.01	**1.6**	**4**	**30**	**4.2**	**16**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW152_210526	MW152	Shallow	26 May 2021	Off-base (East)	**9.71**	**18.4**	**161**	**6.83**	**150**	-	<0.04	**0.8**	**3.73**	**30**	**3.87**	**16.6**	**0.04**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW166_210526*	MW166	Shallow	26 May 2021	Off-base (East)	**2.48**	**3.57**	**31.5**	**1.15**	**19.2**	-	<0.04	**0.2**	**0.97**	**7.48**	**0.59**	**2.33**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW167_210526*	MW167	Shallow	26 May 2021	Off-base (East)	**1.3**	**1.88**	**21.4**	**1.32**	**34.1**	-	<0.04	<0.2	**0.49**	**4.1**	**0.33**	**1.98**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW168_210526*	MW168	Shallow	26 May 2021	Off-base (East)	**6.1**	**12.8**	**131**	**7.16**	**88.9**	-	<0.04	**0.5**	**2.82**	**28**	**2.2**	**11.9**	**0.05**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW169_210526*	MW169	Shallow	26 May 2021	Off-base (East)	**1.4**	**2**	**31**	**1.2**	**23**	<0.01	<0.01	**0.32**	**0.68**	**5.9**	**0.45**	**2.4**	**0.02**	<0.01	<0.01	**1.5**	<0.01	<0.01	-
0932_MW169_210526	MW169	Shallow	26 May 2021	Off-base (East)	**1.74**	**2.25**	**27.9**	**1.36**	**23.4**	-	<0.04	<0.2	**0.63**	**5.32**	**0.36**	**2.64**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_QC102_210526	MW169	Shallow	26 May 2021	Off-base (East)	**1.78**	**2.04**	**31.1**	**1.34**	**24.3**	-	<0.04	<0.2	**0.51**	**5.37**	**0.36**	**2.36**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW150_210729*	MW150	Shallow	29 Jul 2021	Off-base (East)	**0.32**	**0.37**	**4.98**	**0.58**	**167**	-	<0.04	<0.2	**0.19**	**1.28**	**0.09**	**0.5**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW152_210729*	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.6**	**12**	**140**	**8.2**	**130**	<0.01	<0.01	**1.3**	**3.3**	**24**	**3.4**	**16**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_QC102_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.54**	**9.98**	**150**	**6.74**	**142**	-	<0.04	**0.7**	**3.41**	**27.9**	**3.35**	**15.9**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW152_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	**8.38**	**9.98**	**150**	**7.93**	**154**	-	<0.03	**0.7**	**3.35**	**28.9**	**3.13**	**16.5**	<0.03	<0.03	<0.03	<0.03	<0.03	<0.09	-
0932_MW166_210729*	MW166	Shallow	29 Jul 2021	Off-base (East)	**1.78**	**1.56**	**21.9**	**0.87**	**12.3**	-	<0.02	**0.4**	**0.85**	**5.23**	**0.45**	**1.76**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW167_210729*	MW167	Shallow	29 Jul 2021	Off-base (East)	**1.17**	**0.71**	**20.8**	**2.17**	**29.6**	-	<0.02	**0.3**	**0.52**	**3.73**	**0.3**	**1.97**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW168_210729*	MW168	Shallow	29 Jul 2021	Off-base (East)	**4.63**	**6.46**	**143**	**6.61**	**78.6**	-	<0.04	**0.6**	**2.46**	**23.7**	**1.95**	**12.2**	**0.05**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW169_210729*	MW169	Shallow	29 Jul 2021	Off-base (East)	**0.55**	**0.79**	**17.8**	**1.2**	**18.5**	-	<0.02	**0.2**	**0.34**	**2.62**	**0.19**	**1.56**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW166_230403*	MW166	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_230403*	MW167	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW168_230403*	MW168	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW169_230403*	MW169	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW152_230403*	MW152	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC105_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**4.66**	**9.63**	**87.5**	**4.52**	**48.4**	-	<0.02	**0.7**	**2.71**	**20.1**	**2.64**	**12.8**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW152_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**4.76**	**8.92**	**85**	**4.34**	**49.6**	-	<0.02	**0.7**	**2.71**	**19.6**	**2.6**	**12.4**	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC205_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	**5.1**	**7**	**100**	**3.2**	**69**	<0.2	<0.2	**1.2**	**2.7**	**22**	**2.7**	**15**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW166_230404	MW166	Shallow	04 Apr 2023	Off-base (East)	**1.8**	**2.57**	**26**	**1.21**	**24**	-	<0.02	**0.2**	**0.76**	**5.66**	**0.52**	**2.26**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW167_230404	MW167	Shallow	04 Apr 2023	Off-base (East)	**1.1**	**1.47**	**17.6**	**1.25**	**25**	-	<0.02	**0.2**	**0.44**	**3.44**	**0.28**	**1.54**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW168_230404	MW168	Shallow	04 Apr 2023	Off-base (East)	**0.93**	**1.41**	**19.9**	**1.79**	**24.5**	-	<0.02	**0.2**	**0.51**	**4.08**	**0.32**	**1.86**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW169_230404	MW169	Shallow	04 Apr 2023	Off-base (East)	**0.36**	**0.53**	**7.14**	**0.86**	**16**	-	<0.02	<0.1	**0.16**	**1.24**	**0.09**	**0.71**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW152_240620*	MW152	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_240620*	MW167	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC102_240620	MW167	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC202_240621	MW169	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW169_240620*	MW169	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	**1.8**	**2.1**	**20**	**0.63**	**14**	*<0.03*	*<0.001*	**0.28**	**0.57**	**4.2**	**0.43**	**1.6**	**0.007**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	**1.6**	**2**	**26**	**1.2**	**24**	*<0.03*	*<0.001*	**0.31**	**0.57**	**4.1**	**0.42**	**1.8**	**0.012**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	**0.15**	**0.21**	**9.5**	**2.8**	**38**	*<0.07*	*<0.001*	**0.076**	**0.17**	**0.77**	**0.082**	**1.6**	**0.07**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW166_250506*	MW166	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_250506*	MW166	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250506*	MW167	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250506*	MW167	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC201_250506	MW166	Shallow	06 May 2025	Off-base (East)	**0.78**	**0.82**	**7.5**	**0.22**	**5.6**	*<0.02*	*<0.02*	**0.13**	**0.36**	**2**	**0.17**	**0.75**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	-
0932_MW168_250506*	MW168	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW168_250506*	MW168	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250506	MW166	Shallow	06 May 2025	Off-base (East)	**0.96**	**1.39**	**9.8**	**0.47**	**6.09**	*<0.02*	*<0.02*	**0.2**	**0.44**	**2.57**	**0.23**	**0.91**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW166_250506	MW166	Shallow	06 May 2025	Off-base (East)	**1.18**	**1.9**	**12.5**	**0.65**	**7.86**	*<0.02*	*<0.02*	**0.3**	**0.5**	**3.25**	**0.32**	**1.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW167_250506	MW167	Shallow	06 May 2025	Off-base (East)	**1.25**	**2.27**	**18.3**	**1.62**	**21.9**	*<0.02*	*<0.02*	**0.3**	**0.63**	**4.13**	**0.36**	**1.82**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW168_250506	MW168	Shallow	06 May 2025	Off-base (East)	*<0.02*	*<0.02*	**0.14**	**0.14**	**18.1**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.02**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW152_250623	MW152	Shallow	23 Jun 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250623	MW167	Shallow	23 Jun 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW111_181219*	MW111	Unknown	19 Dec 2018	On-base Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111_181219	MW111	Unknown	19 Dec 2018	On-base Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW009_180405*	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009_180405	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	**0.03**	**0.03**	**0.12**	*<0.01*	**0.08**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW026_180406*	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW026_180406	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	**0.02**	*<0.01*	**0.05**	*<0.01*	**0.07**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	**0.006**	**0.003**	**0.012**	*<0.001*	**0.01**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.003**	**0.001**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW026_250502*	MW026	Shallow	02 May 2025	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_250502*	MW026	Shallow	02 May 2025	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_250502	MW026	Shallow	02 May 2025	On-base Other (Central west)	*<0.02*	*<0.02*	**0.01**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
MW056_180413	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	**0.02**	**0.02**	**0.21**	*<0.01*	**0.15**	-	*<0.01*	*<0.05*	*<0.01*	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW056_180413*	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110_181218	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	**3**	**3.8**	**15**	**0.07**	**0.25**	-	*<0.01*	**0.63**	**1.6**	**11**	**0.56**	**0.49**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW110_181218*	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_200930*	MW110	Shallow	30 Sep 2020	On-base Other (Eastern boundary)	**13.1**	**24.7**	**267**	**6.62**	**115**	-	*<0.04*	**0.9**	**9.27**	**71.6**	**6.84**	**27.4**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW110_210524*	MW110	Shallow	24 May 2021	On-base Other (Eastern boundary)	**14.3**	**31.4**	**246**	**9.06**	**178**	-	*<0.04*	**3.7**	**9.61**	**71.3**	**7.16**	**28.6**	**0.07**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW110_210730*	MW110	Shallow	30 Jul 2021	On-base Other (Eastern boundary)	**10.8**	**14.4**	**180**	**5.94**	**141**	-	*<0.04*	**0.8**	**6.31**	**50.1**	**4.04**	**17.5**	**0.08**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW110_230327*	MW110	Shallow	27 Mar 2023	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_230330	MW110	Shallow	30 Mar 2023	On-base Other (Eastern boundary)	**4.33**	**8.55**	**76.4**	**5.41**	**69**	-	*<0.02*	**0.7**	**3.14**	**19.3**	**2.08**	**9.23**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW110_240627*	MW110	Shallow	27 Jun 2024	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	**2.3**	**2.5**	**13**	**0.1**	**0.16**	*<0.001*	*<0.001*	**0.47**	**0.95**	**5.2**	**0.43**	**0.44**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250512	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	**2.16**	**1.73**	**10.3**	**0.11**	**0.21**	*<0.02*	*<0.02*	**0.6**	**1.19**	**6.26**	**0.32**	**0.34**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW110_250512*	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250512*	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250618	MW110	Shallow	18 Jun 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_D_200929	MW043	Deep	29 Sep 2020	On-base Other (North of SA01)	**2.4**	**2.73**	**14.5**	**0.1**	**0.17**	-	<0.02	**0.3**	**0.48**	**3.19**	**0.31**	**0.23**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW043_210525*	MW043	Deep	25 May 2021	On-base Other (North of SA01)	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW043_210730*	MW043	Deep	30 Jul 2021	On-base Other (North of SA01)	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW043_230328*	MW043	Deep	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_230330	MW043	Deep	30 Mar 2023	On-base Other (North of SA01)	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW043_240626*	MW043	Deep	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_250516	MW043	Deep	16 May 2025	On-base Other (North of SA01)	<0.02	<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW043_250701	MW043	Deep	01 Jul 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_I_200929	MW044	Intermediate	29 Sep 2020	On-base Other (North of SA01)	**2.23**	**2.62**	**15.6**	**0.1**	**0.2**	-	<0.02	**0.3**	**0.45**	**3.01**	**0.29**	**0.22**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW044_210525*	MW044	Intermediate	25 May 2021	On-base Other (North of SA01)	**2.38**	**2.99**	**14.8**	**0.1**	**0.16**	-	<0.02	**0.3**	**0.45**	**3.35**	**0.32**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW044_210730*	MW044	Intermediate	30 Jul 2021	On-base Other (North of SA01)	**2.32**	**2.01**	**18.9**	**0.16**	**0.26**	-	<0.02	**0.3**	**0.46**	**3.32**	**0.3**	**0.45**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW044_230328*	MW044	Intermediate	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_230330	MW044	Intermediate	30 Mar 2023	On-base Other (North of SA01)	**1.71**	**2.24**	**14.4**	**0.13**	**0.25**	-	<0.02	**0.1**	**0.39**	**2.18**	**0.23**	**0.34**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	**1.5**	**2.3**	**9.4**	**0.1**	**0.14**	<0.001	<0.001	**0.095**	**0.26**	**1.7**	**0.16**	**0.2**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW044_250512*	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_250512*	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.37**	**1.18**	**7.83**	**0.08**	**0.18**	<0.02	<0.02	**0.2**	**0.29**	**1.67**	**0.13**	**0.21**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW044_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.32**	**1.82**	**9.3**	**0.08**	**0.21**	<0.02	<0.02	**0.2**	**0.27**	**1.7**	**0.16**	**0.22**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	**1.7**	**2**	**10**	**0.07**	**0.23**	<0.01	<0.01	**0.2**	**0.24**	**1.9**	**0.2**	**0.31**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW046_160517*	MW046	Shallow	17 May 2016	On-base Other (North of SA01)	**0.05**	-	<0.01	-	***<0.01***	-	<0.01	<0.05	**0.03**	**0.1**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW038_180413*	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_180413*	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW038_180413	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	**1.5**	**1.2**	**7.9**	**0.08**	**0.96**	-	<0.01	**0.32**	**0.54**	**3.5**	**0.2**	**0.21**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW039_180413	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	**1.5**	**1.2**	**3.9**	**0.04**	**0.52**	-	<0.01	**0.4**	**0.75**	**4.2**	**0.23**	**0.14**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW040_180413*	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_180413*	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW040_180413	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	**3.1**	**3.8**	**41**	**0.83**	**10**	-	<0.01	**0.41**	**0.87**	**7.3**	**0.63**	**1.7**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW042_180413*	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW041_180413	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.25**	**0.08**	**0.39**	**0.01**	**1.2**	-	<0.01	**0.08**	**0.13**	**0.52**	**0.03**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW042_180413	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.1**	**0.06**	**0.38**	<0.01	***<0.01***	-	<0.01	<0.05	**0.03**	**0.12**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW045_180413*	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW046_180413*	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045_180413	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.9**	**0.92**	**11**	**0.57**	**29**	-	<0.01	**0.24**	**0.4**	**2.6**	**0.25**	**0.77**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW046_180413	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	**0.91**	**0.82**	**5.8**	**0.07**	**0.8**	-	<0.01	**0.15**	**0.28**	**1.7**	**0.13**	**0.18**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW039_S_200921	MW039	Shallow	21 Sep 2020	On-base Other (North of SA01)	**2.5**	**3.49**	**18.7**	**0.22**	**0.65**	-	<0.02	**0.5**	**1.18**	**8.56**	**0.6**	**0.53**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW039_S_200929	MW039	Shallow	29 Sep 2020	On-base Other (North of SA01)	**1.79**	**2.54**	**11.4**	**0.13**	**0.56**	-	<0.02	**0.4**	**0.83**	**5.43**	**0.5**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW040_S_200929	MW040	Shallow	29 Sep 2020	On-base Other (North of SA01)	**4.52**	**6.34**	**59.6**	**1.41**	**10.6**	-	<0.02	**0.6**	**1.53**	**12.1**	**1.32**	**2.97**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW041_200929*	MW041	Shallow	29 Sep 2020	On-base Other (North of SA01)	**4.27**	**5.7**	**28.1**	**0.74**	**10.4**	-	<0.02	**1.1**	**2.34**	**13.7**	**1.11**	**1.65**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW042_200929*	MW042	Shallow	29 Sep 2020	On-base Other (North of SA01)	**1.46**	**1.6**	**8.47**	**0.06**	**0.21**	-	<0.02	**0.1**	**0.2**	**1.58**	**0.16**	**0.22**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW045_200929*	MW045	Shallow	29 Sep 2020	On-base Other (North of SA01)	**0.47**	**0.54**	**5.96**	**0.74**	**27.5**	-	<0.02	**0.2**	**0.22**	**1.32**	**0.13**	**0.49**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW039_210525*	MW039	Shallow	25 May 2021	On-base Other (North of SA01)	**2.38**	**2.98**	**12.2**	**0.14**	**0.42**	-	<0.02	**0.3**	**0.9**	**6.47**	**0.51**	**0.43**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW040_210525*	MW040	Shallow	25 May 2021	On-base Other (North of SA01)	**2.84**	**3.64**	**36.4**	**0.55**	**4.62**	-	<0.02	**0.4**	**0.62**	**6.82**	**0.6**	**1.24**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW041_210525*	MW041	Shallow	25 May 2021	On-base Other (North of SA01)	**0.22**	**0.1**	**0.26**	<0.02	**0.43**	-	<0.02	**0.1**	**0.13**	**0.47**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW042_210525*	MW042	Shallow	25 May 2021	On-base Other (North of SA01)	**0.78**	**1.04**	**4.99**	**0.06**	**0.12**	-	<0.02	**0.1**	**0.13**	**0.95**	**0.09**	**0.13**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW045_210525*	MW045	Shallow	25 May 2021	On-base Other (North of SA01)	**0.72**	**1.93**	**11.5**	**0.87**	**22.8**	-	<0.02	**0.4**	**0.37**	**2.21**	**0.23**	**0.62**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW039_210730*	MW039	Shallow	30 Jul 2021	On-base Other (North of SA01)	**2.13**	**1.32**	**13**	**0.18**	**0.59**	-	<0.02	**0.5**	**0.89**	**6.35**	**0.44**	**0.41**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW040_210730*	MW040	Shallow	30 Jul 2021	On-base Other (North of SA01)	**4.24**	**3.42**	**68.9**	**1.21**	**11.1**	-	<0.04	<0.2	**1.4**	**11.8**	**0.93**	**2.87**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW041_210730*	MW041	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.22**	**0.06**	**0.17**	<0.02	**0.21**	-	<0.02	<0.1	**0.11**	**0.44**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW042_210730*	MW042	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.98**	**0.96**	**8.62**	**0.09**	**0.22**	-	<0.02	**0.1**	**0.19**	**1.42**	**0.12**	**0.2**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW045_210730*	MW045	Shallow	30 Jul 2021	On-base Other (North of SA01)	**0.58**	**0.6**	**9.51**	**0.62**	**26.9**	-	<0.04	<0.2	**0.28**	**1.63**	**0.15**	**0.58**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW039_230328*	MW039	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW040_230328*	MW040	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_230328*	MW041	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_230328*	MW042	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_230328*	MW045	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_230330	MW039	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.9**	**1.76**	**9.65**	**0.14**	**1.01**	-	<0.02	**0.2**	**0.52**	**2.91**	**0.28**	**0.37**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW040_230330	MW040	Shallow	30 Mar 2023	On-base Other (North of SA01)	**2.69**	**3.9**	**38**	**0.71**	**10.4**	-	<0.02	**0.1**	**0.81**	**5.41**	**0.63**	**1.87**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW041_230330	MW041	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.31**	**0.1**	**0.85**	**0.05**	**1.75**	-	<0.02	<0.1	**0.12**	**0.72**	**0.03**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW042_230330	MW042	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.12**	**0.13**	**0.53**	<0.02	**0.01**	-	<0.02	<0.1	**0.02**	**0.14**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW045_230330	MW045	Shallow	30 Mar 2023	On-base Other (North of SA01)	**0.94**	**1.87**	**21.5**	**0.85**	**20.9**	-	<0.02	**0.2**	**0.48**	**2.98**	**0.36**	**0.81**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW046_230614*	MW046	Shallow	14 Jun 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_240626*	MW041	Shallow	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_240626*	MW042	Shallow	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	<0.001	<0.001	<0.001	<0.001	***<0.001***	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	**2.1**	**2.2**	**7**	**0.069**	**0.35**	<0.001	<0.001	**0.44**	**0.88**	**5**	**0.25**	**0.19**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	**9.1**	**19**	**34**	**0.69**	**2.9**	<0.001	<0.001	**2**	**5**	**17**	**2.4**	**2.2**	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	**0.3**	**0.11**	**0.19**	**0.007**	**0.46**	**0.001**	<0.001	**0.07**	**0.14**	**0.55**	**0.016**	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_QC201_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.00040	<0.0010	**0.00033**	<0.0010	**0.00089**	-	<0.0020	<0.0020	<0.0020	<0.00040	<0.00040	<0.00020	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050	-
0932_QC101_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	**0.045**	**0.03**	**0.091**	**0.002**	**0.042**	<0.001	<0.001	<0.005	**0.008**	**0.03**	**0.002**	**0.003**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	**1**	**1.2**	**15**	**0.83**	**33**	**0.014**	<0.001	**0.21**	**0.35**	**2.4**	**0.28**	**0.82**	**0.008**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW038_250512*	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_250512*	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_250512	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	**1.05**	**0.72**	**4.27**	**0.1**	**0.63**	<0.02	<0.02	**0.3**	**0.52**	**2.53**	**0.12**	**0.14**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW039_250512*	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_250512*	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_250512	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	**3.7**	**4.33**	**25.1**	**0.68**	**3.05**	<0.02	<0.02	**1.4**	**2.75**	**15.1**	**0.9**	**1.2**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW041_250512*	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_250512*	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_250512	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	**0.25**	**0.1**	**0.19**	<0.02	**0.35**	<0.02	<0.02	<0.1	**0.13**	**0.5**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW042_250512*	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_250512*	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_250512	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	**0.3**	**0.23**	**1.43**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	**0.06**	**0.35**	**0.03**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW045_250512*	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_250512*	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_250512	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	**0.8**	**0.84**	**10.8**	**0.64**	**21.2**	*<0.02*	*<0.02*	**0.2**	**0.37**	**2.2**	**0.18**	**0.69**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW042_250701	MW042	Shallow	01 Jul 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW006_180406*	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006_180406	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	*<0.01*	*<0.01*	**0.01**	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW001_180409*	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_180409*	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW001_180409	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	*<0.01*	*<0.01*	**0.06**	*<0.01*	**0.03**	-	*<0.01*	*<0.05*	*<0.01*	**0.02**	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW002_180409	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	**0.01**	**0.02**	**0.37**	**0.02**	**1.3**	-	*<0.01*	**0.11**	**0.02**	**0.05**	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW005_180411*	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005_180411	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	**1**	**1.2**	**7.7**	**0.17**	**1.8**	-	*<0.01*	**0.16**	**0.48**	**2.6**	**0.17**	**0.2**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	**0.016**	**0.012**	**0.093**	**0.002**	**0.06**	*<0.001*	*<0.001*	**0.02**	**0.004**	**0.011**	**0.003**	**0.007**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	**0.78**	**1.4**	**12**	**0.21**	**5.2**	*<0.0125*	*<0.001*	**0.047**	**0.22**	**1.4**	**0.13**	**0.19**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW002_250505*	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_250505*	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_250505	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	*<0.02*	*<0.02*	**0.05**	*<0.02*	**0.07**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW005_250506*	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_250506*	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_250506	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	**0.35**	**0.42**	**3.68**	**0.12**	**3.36**	*<0.02*	*<0.02*	*<0.1*	**0.1**	**0.54**	**0.05**	**0.1**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW027_160518*	MW027	Shallow	18 May 2016	On-base Other (North of SA05/SA06)	*<0.01*	-	*<0.01*	-	**0.25**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW027_180518*	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW027_180518	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	*<0.01*	*<0.01*	**0.01**	*<0.01*	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW027_210707*	MW027	Shallow	07 Jul 2021	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_220606*	MW027	Shallow	06 Jun 2022	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_230606*	MW027	Shallow	06 Jun 2023	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_240621*	MW027	Shallow	21 Jun 2024	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.008**	**0.004**	**0.02**	*<0.001*	**0.041**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.005**	**0.002**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC102_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.008**	**0.004**	**0.02**	*<0.001*	**0.044**	*<0.001*	*<0.001*	*<0.005*	**0.002**	**0.006**	*<0.001*	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC202_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	**0.01**	**0.005**	**0.027**	*<0.0010*	**0.047**	-	*<0.0020*	*<0.020*	*<0.0040*	**0.0055**	**0.0016**	**0.0042**	*<0.0010*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.010*	*<0.050*	-
0932_MW027_250502*	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_250502*	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_250502	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	*<0.02*	*<0.02*	**0.02**	*<0.02*	***<0.01***	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW027_250616	MW027	Shallow	16 Jun 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW100_200518*	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	**0.01**	**0.01**	**0.1**	*<0.01*	**0.02**	*<0.01*	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
QC101_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	*<0.02*	**0.03**	**0.15**	*<0.02*	**0.03**	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
MW100_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	**0.02**	**0.03**	**0.17**	*<0.02*	**0.04**	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW108_181218*	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																	
MW108_181218	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	**0.01**	<0.01	**0.05**	<0.01	**0.01**	-	<0.01	<0.05	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW030_180518*	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW063_180518*	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030_180518	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.01	<0.01	<0.01	***<0.01***	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW063_180518	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.01	<0.01	<0.01	***<0.01***	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW101_200518*	MW101	Shallow	18 May 2020	On-base Other (Northwest of SA08)	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
MW107_181218	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	**1.4**	**2.2**	**20**	**0.8**	**24**	-	<0.01	**0.34**	**0.77**	**4.8**	**0.49**	**5.1**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW107_181218*	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	**2.3**	**2.7**	**24**	**0.74**	**10**	<0.02	<0.001	**0.68**	**0.89**	**5.3**	**0.51**	**4.4**	**0.012**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_250506	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	**2.81**	**4.34**	**26**	**1.21**	**8.61**	<0.02	<0.02	**0.8**	**1.34**	**7**	**0.69**	**5.68**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW107_250506*	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_250506*	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW049_160517*	MW049	Shallow	17 May 2016	On-base Other (South of SA07)	**0.02**	-	**0.15**	-	**0.03**	-	<0.01	<0.05	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW049_180115*	MW049	Shallow	15 Jan 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW049_180412*	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW049_180412	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	**0.02**	**0.02**	**0.17**	<0.01	**0.08**	-	<0.01	<0.05	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW109_181218*	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC217_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.02	<0.02	**0.23**	<0.02	**0.16**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
MW109_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	**0.01**	**0.01**	**0.23**	<0.01	**0.2**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC116_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	**0.01**	**0.01**	**0.24**	<0.01	**0.21**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW106_181219*	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106_181219	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	**20**	**20**	**160**	**1.2**	**5**	-	<0.01	**8.5**	**24**	**190**	**18**	**40**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	**100**	**120**	**1,500**	**11**	**37**	<0.15	<0.15	**23**	**84**	**540**	**110**	**500**	**0.97**	<0.15	<0.15	<0.001	<0.001	<0.001	-
0932_MW106_250506*	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_250506*	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_250506	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	**65.3**	**150**	**1,090**	**24.3**	**26.8**	<0.04	<0.04	**30.8**	**74.3**	**534**	**84**	**400**	**0.84**	<0.04	<0.04	<0.04	<0.04	<0.09	<0.09
MW112_181219	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	**0.06**	**0.06**	**0.47**	<0.01	**0.15**	-	<0.01	<0.05	**0.02**	**0.16**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW112_181219*	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	**0.01**	**0.006**	**0.042**	**0.002**	**0.066**	<0.001	<0.001	**0.006**	**0.003**	**0.004**	**0.003**	**0.007**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_250505	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	<0.02	<0.02	**0.03**	<0.02	**0.05**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW112_250505*	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_250505*	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_180413*	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW025_180413	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	**0.93**	**0.9**	**7.8**	**0.15**	**4.8**	-	<0.01	**0.14**	**0.3**	**2.2**	**0.16**	**0.31**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	**0.077**	**0.024**	**0.086**	**0.002**	**0.032**	<0.001	<0.001	**0.026**	**0.039**	**0.16**	**0.009**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
0932_MW025_250512*	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_250512*	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_250512	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	**0.08**	**0.02**	**0.09**	<0.02	**0.02**	<0.02	<0.02	<0.1	**0.04**	**0.18**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW051_180410*	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051_180410	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	**0.14**	**0.14**	**1.7**	**0.05**	**2.3**	-	<0.01	**0.09**	**0.11**	**0.26**	**0.07**	**0.07**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
MW052_180412	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.5**	**0.02**	**0.18**	-	<0.01	<0.05	**0.01**	**0.06**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW052_180412*	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_181218*	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW105_181218	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	**0.55**	**0.41**	**4.6**	**0.25**	**2.5**	-	<0.01	**0.13**	**0.18**	**1.9**	**0.07**	**0.15**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW113_181218*	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113_181218	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	**0.02**	**0.02**	**0.15**	<0.01	**0.05**	-	<0.01	<0.05	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	**1.6**	**1.8**	**13**	**0.31**	**3.3**	**0.005**	<0.001	**0.38**	**0.58**	**2.5**	**0.31**	**0.48**	**0.005**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW113_241210*	MW113	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW113_241210*	MW113	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505*	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505*	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.65**	**2.16**	**11.4**	**0.45**	**3.25**	<0.02	<0.02	**0.5**	**0.68**	**2.91**	**0.27**	**0.45**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.6**	**1.7**	**13**	**0.28**	**3.5**	**0.007**	<0.001	**0.26**	**0.61**	**2.5**	**0.3**	**0.66**	**0.005**	<0.001	<0.001	<0.001	<0.001	<0.01	-
0932_MW216_250505*	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW216_250505*	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	**1.62**	**2.21**	**12.5**	**0.48**	**3.5**	<0.02	<0.02	**0.5**	**0.66**	**3.03**	**0.28**	**0.45**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW216_250505	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	**0.06**	**0.07**	**0.52**	<0.02	**0.82**	<0.02	<0.02	<0.1	**0.02**	**0.11**	<0.02	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW215_250508*	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW215_250508*	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW215_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.02**	**0.19**	<0.02	**0.08**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC101_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.19**	<0.02	**0.09**	<0.02	<0.02	<0.1	<0.02	**0.02**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	**0.03**	**0.03**	**0.26**	<0.01	**0.11**	<0.01	<0.01	<0.05	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW037_180412*	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_180412*	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW037_180412	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	**0.93**	**0.84**	**8.3**	**0.29**	**24**	-	<0.01	**0.21**	**0.29**	**1.6**	**0.13**	**0.29**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW047_180412	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	**1.3**	**1.2**	**12**	**0.42**	**4.3**	-	<0.01	**0.38**	**0.49**	**2.5**	**0.22**	**0.53**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	**0.41**	**0.5**	**3.8**	**0.087**	**3.7**	<0.001	<0.001	**0.075**	**0.076**	**0.49**	**0.049**	**0.069**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW047_250506*	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_250506*	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_250506	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	**0.37**	**0.43**	**3.51**	**0.1**	**3.02**	<0.02	<0.02	<0.1	**0.1**	**0.58**	**0.03**	**0.07**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW020_180410*	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020_180410	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	<0.01	**0.01**	**0.25**	**0.01**	**1**	-	<0.01	<0.05	<0.01	**0.03**	<0.01	**0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	**0.018**	**0.033**	**0.53**	**0.021**	**1.4**	**0.004**	**0.003**	**0.033**	**0.012**	**0.059**	**0.011**	**0.083**	**0.006**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW020_250502*	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW020_250502*	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.02	<0.02	**0.13**	<0.02	**0.82**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW020_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.02	<0.02	**0.12**	<0.02	**0.84**	<0.02	<0.02	<0.1	<0.02	**0.02**	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC201_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.01	<0.01	**0.15**	**0.01**	**1.2**	<0.01	<0.01	<0.05	**0.02**	**0.02**	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW013_180406*	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013_180406	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	<0.01	<0.01	<0.01	<0.01	**0.04**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																	
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	**0.003**	**0.003**	**0.033**	<0.001	**0.002**	<0.001	<0.001	<0.005	**0.001**	**0.011**	**0.001**	**0.008**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW013_250505*	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW013_250505*	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.02	<0.02	<0.01	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	**0.002**	<0.002	**0.007**	<0.002	**0.008**	-	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW189_200930*	MW189	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_200930*	MW190	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_200930*	MW191	Deep	30 Sep 2020	SA01	**0.22**	**0.2**	**0.74**	<0.02	**0.26**	-	<0.02	<0.1	**0.07**	**0.39**	**0.04**	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_D_200930	MW194	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC105_200930	MW194	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_200930*	MW194	Deep	30 Sep 2020	SA01	<0.01	<0.01	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_200930*	MW195	Deep	30 Sep 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_201001*	MW193	Deep	01 Oct 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_201001*	MW196	Deep	01 Oct 2020	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_201110*	MW191	Deep	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_210524*	MW189	Deep	24 May 2021	SA01	**0.07**	**0.02**	**0.45**	**0.05**	**1.48**	-	<0.02	<0.1	**0.03**	**0.16**	<0.02	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_210524*	MW190	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_210524*	MW191	Deep	24 May 2021	SA01	**0.21**	**0.11**	**0.72**	<0.02	**0.26**	-	<0.02	<0.1	**0.08**	**0.45**	**0.04**	**0.13**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW195_210524*	MW195	Deep	24 May 2021	SA01	<0.01	<0.01	**0.01**	<0.01	***<0.01***	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_210524	MW195	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC101_210524	MW195	Deep	24 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_210525*	MW193	Deep	25 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_210525*	MW196	Deep	25 May 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_210526	MW194	Deep	26 May 2021	SA01	<0.02	<0.02	**0.02**	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_210603*	MW194	Deep	03 Jun 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW195_210728*	MW195	Deep	28 Jul 2021	SA01	<0.02	<0.02	**0.03**	<0.02	**0.01**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_210729*	MW191	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_210729*	MW194	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW196_210729*	MW196	Deep	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_210730*	MW189	Deep	30 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_210730*	MW190	Deep	30 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW193_210803*	MW193	Deep	03 Aug 2021	SA01	<0.01	<0.01	<0.01	<0.01	***<0.01***	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW193_210803	MW193	Deep	03 Aug 2021	SA01	<0.02	<0.02	<0.02	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_230327*	MW189	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_230327*	MW190	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW191_230327*	MW191	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW193_230327*	MW193	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_230327*	MW194	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW196_230327*	MW196	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW195_230328*	MW195	Deep	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC100_230328	MW194	Deep	28 Mar 2023	SA01	**0.04**	**0.03**	**0.13**	<0.02	**0.06**	-	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW194_230328	MW194	Deep	28 Mar 2023	SA01	**0.08**	**0.07**	**0.24**	<0.02	**0.08**	-	<0.02	<0.1	**0.02**	**0.12**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC200_230328	MW194	Deep	28 Mar 2023	SA01	**0.04**	**0.03**	**0.11**	<0.01	**0.09**	<0.01	<0.01	<0.05	**0.01**	**0.06**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW196_230328	MW196	Deep	28 Mar 2023	SA01	<0.02	<0.02	<0.01	<0.02	***<0.01***	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**															
0932_MW193_230329	MW193	Deep	29 Mar 2023	SA01	*<0.01*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC102_230329	MW193	Deep	29 Mar 2023	SA01	*<0.01*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC202_230329	MW193	Deep	29 Mar 2023	SA01	**0.02**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW195_230329	MW195	Deep	29 Mar 2023	SA01	*<0.01*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW189_230330	MW189	Deep	30 Mar 2023	SA01	**0.01**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW190_230330	MW190	Deep	30 Mar 2023	SA01	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW191_230330	MW191	Deep	30 Mar 2023	SA01	**0.03**	-	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW188_240616*	MW188	Deep	16 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW188_240617	MW188	Deep	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_240618*	MW189	Deep	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_240618*	MW194	Deep	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_240627*	MW190	Deep	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_250516	MW190	Deep	16 May 2025	SA01	**0.04**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW193_250516	MW193	Deep	16 May 2025	SA01	**0.01**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW194_250516	MW194	Deep	16 May 2025	SA01	**0.18**	<0.02	<0.02	<0.1	<0.02	**0.06**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW196_250516	MW196	Deep	16 May 2025	SA01	*<0.01*	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW195_250519	MW195	Deep	19 May 2025	SA01	*<0.01*	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW188_250617	MW188	Deep	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_250618	MW189	Deep	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_250618	MW194	Deep	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_250624	MW190	Deep	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_200922*	MW180	Intermediate	22 Sep 2020	SA01	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW172_200930*	MW172	Intermediate	30 Sep 2020	SA01	**0.87**	-	<0.04	<0.2	**0.32**	**1.86**	**0.19**	**0.41**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW174_200930*	MW174	Intermediate	30 Sep 2020	SA01	*<0.01*	-	<0.02	<0.1	**0.08**	**0.37**	**0.02**	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW176_200930*	MW176	Intermediate	30 Sep 2020	SA01	**2.04**	-	<0.04	<0.2	**0.45**	**2.6**	**0.29**	**0.75**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW184_200930*	MW184	Intermediate	30 Sep 2020	SA01	**1.99**	-	<0.04	<0.2	**0.55**	**3.42**	**0.41**	**2.22**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW185_200930*	MW185	Intermediate	30 Sep 2020	SA01	**26.5**	-	<0.04	**0.4**	**4.16**	**25.5**	**2.98**	**5.96**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW178_201001*	MW178	Intermediate	01 Oct 2020	SA01	**11.2**	-	<0.04	<0.2	**2.06**	**11.7**	**0.4**	**0.68**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW179_201001*	MW179	Intermediate	01 Oct 2020	SA01	**0.05**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_201001*	MW180	Intermediate	01 Oct 2020	SA01	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC103_201001	MW181	Intermediate	01 Oct 2020	SA01	*<0.01*	-	<0.02	<0.1	<0.02	**0.16**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_I_201001	MW181	Intermediate	01 Oct 2020	SA01	*<0.01*	-	<0.02	<0.1	**0.03**	**0.23**	**0.02**	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_201001*	MW181	Intermediate	01 Oct 2020	SA01	**0.01**	<0.01	<0.01	<0.05	**0.06**	**0.29**	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW182_201001*	MW182	Intermediate	01 Oct 2020	SA01	**0.26**	-	<0.02	<0.1	**0.06**	**0.37**	**0.04**	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_201001*	MW183	Intermediate	01 Oct 2020	SA01	*<0.01*	-	<0.02	<0.1	**0.02**	**0.26**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_I_201001	MW186	Intermediate	01 Oct 2020	SA01	**0.59**	-	<0.04	<0.2	**0.23**	**1.27**	**0.12**	**0.24**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_QC107_201001	MW186	Intermediate	01 Oct 2020	SA01	**0.64**	-	<0.04	<0.2	**0.22**	**1.27**	**0.13**	**0.26**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW186_201001*	MW186	Intermediate	01 Oct 2020	SA01	**1.3**	<0.01	<0.01	**0.12**	**0.2**	**1.4**	**0.13**	**0.28**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW184_201110*	MW184	Intermediate	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_201110*	MW185	Intermediate	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_210524*	MW172	Intermediate	24 May 2021	SA01	**1.03**	-	<0.02	**0.3**	**0.44**	**2.66**	**0.22**	**0.5**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW182_210524*	MW182	Intermediate	24 May 2021	SA01	**1.2**	-	<0.02	<0.1	**0.1**	**0.65**	**0.07**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW184_210524	MW184	Intermediate	24 May 2021	SA01	**1.66**	-	<0.02	**0.4**	**0.62**	**3.65**	**0.51**	**2.44**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC105_210524	MW184	Intermediate	24 May 2021	SA01	**2.16**	-	<0.02	**0.3**	**0.67**	**3.38**	**0.54**	**2.5**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW184_210524*	MW184	Intermediate	24 May 2021	SA01	**1.5**	**1.6**	**11**	**0.3**	**2.4**	<0.01	<0.01	**0.36**	**0.68**	**4.3**	**0.58**	**2.5**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW174_210525*	MW174	Intermediate	25 May 2021	SA01	**0.23**	**0.21**	**0.25**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.32**	**0.02**	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210525	MW178	Intermediate	25 May 2021	SA01	**2.25**	**2.53**	**20.9**	**0.45**	**3.65**	-	<0.02	**0.8**	**0.68**	**6.24**	**0.9**	**2.59**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW179_210525*	MW179	Intermediate	25 May 2021	SA01	<0.02	<0.02	**0.09**	<0.02	**0.11**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_210525*	MW181	Intermediate	25 May 2021	SA01	**0.1**	**0.08**	**0.04**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.26**	**0.02**	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_210525*	MW183	Intermediate	25 May 2021	SA01	**0.17**	**0.14**	**0.13**	<0.02	**0.04**	-	<0.02	<0.1	**0.06**	**0.27**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_210525*	MW186	Intermediate	25 May 2021	SA01	**1.06**	**3.11**	**7.93**	**0.18**	**1.6**	-	<0.02	**0.3**	**0.34**	**2.02**	**0.24**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210526*	MW178	Intermediate	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_210526*	MW176	Intermediate	26 May 2021	SA01	**0.15**	**0.12**	**0.96**	**0.03**	**3.78**	-	<0.02	<0.1	**0.06**	**0.27**	**0.02**	**0.07**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_210526*	MW180	Intermediate	26 May 2021	SA01	**6.63**	**11**	**96.9**	**3.09**	**66.1**	-	<0.04	**0.6**	**4.81**	**32.7**	**3.53**	**17.9**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW185_210526*	MW185	Intermediate	26 May 2021	SA01	**13.4**	**15.7**	**102**	**4.39**	**35.8**	-	<0.04	**1**	**4.76**	**27**	**3.15**	**6.22**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW172_210728*	MW172	Intermediate	28 Jul 2021	SA01	**1.34**	**1.59**	**11.6**	**0.29**	**1.02**	-	<0.02	**0.3**	**0.44**	**2.3**	**0.25**	**0.49**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW185_210728	MW185	Intermediate	28 Jul 2021	SA01	**9.02**	**7.69**	**66.9**	**2.28**	**15**	-	<0.03	<0.2	**3.47**	**17.5**	**2.02**	**4.29**	<0.03	<0.03	<0.03	<0.03	<0.03	<0.09	-
0932_QC101_210728	MW185	Intermediate	28 Jul 2021	SA01	**8.76**	**7.48**	**75.2**	**2.48**	**17.2**	-	<0.04	<0.2	**3.59**	**19.2**	**2.28**	**4.87**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW185_210728*	MW185	Intermediate	28 Jul 2021	SA01	**15**	**15**	**110**	**2.7**	**26**	<0.01	<0.01	**3**	**1.4**	**25**	**2.9**	**6.2**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW176_210729*	MW176	Intermediate	29 Jul 2021	SA01	**1.01**	**0.59**	**9.88**	**0.24**	**2.02**	-	<0.02	**0.3**	**0.45**	**2.63**	**0.28**	**0.77**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW179_210729*	MW179	Intermediate	29 Jul 2021	SA01	<0.02	<0.02	<0.02	<0.02	**0.02**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_210729*	MW186	Intermediate	29 Jul 2021	SA01	**1.04**	**0.66**	**6.83**	**0.16**	**1.14**	-	<0.02	**0.2**	**0.32**	**1.67**	**0.15**	**0.32**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_210730*	MW181	Intermediate	30 Jul 2021	SA01	**0.1**	**0.03**	**0.04**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.23**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW182_210730*	MW182	Intermediate	30 Jul 2021	SA01	**0.11**	**0.1**	**0.71**	<0.02	**0.21**	-	<0.02	<0.1	**0.06**	**0.36**	**0.04**	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW183_210730*	MW183	Intermediate	30 Jul 2021	SA01	**0.26**	**0.13**	**0.11**	<0.02	***<0.01***	-	<0.02	<0.1	**0.1**	**0.41**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW184_210730*	MW184	Intermediate	30 Jul 2021	SA01	**0.21**	**0.26**	**1.41**	**0.04**	**0.3**	-	<0.02	<0.1	**0.11**	**0.55**	**0.08**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW174_210803*	MW174	Intermediate	03 Aug 2021	SA01	**0.3**	**0.13**	**0.33**	<0.02	***<0.01***	-	<0.02	<0.1	**0.05**	**0.32**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210803	MW178	Intermediate	03 Aug 2021	SA01	**2.42**	**1.51**	**22.2**	**0.7**	**2.54**	-	<0.02	**0.5**	**1.06**	**5.11**	**0.66**	**2.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC106_210803	MW178	Intermediate	03 Aug 2021	SA01	**2.24**	**1.47**	**24**	**0.86**	**3.13**	-	<0.02	**0.5**	**1.04**	**5.84**	**0.77**	**2.69**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_210803*	MW178	Intermediate	03 Aug 2021	SA01	**3.1**	**4.2**	**35**	**0.7**	**5.1**	<0.01	<0.01	**0.64**	**1.1**	**7.3**	**1**	**2.7**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW180_210803	MW180	Intermediate	03 Aug 2021	SA01	<0.02	<0.02	**0.15**	<0.02	**0.04**	-	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_210803*	MW180	Intermediate	03 Aug 2021	SA01	**0.02**	**0.02**	**0.16**	<0.01	**0.07**	<0.01	<0.01	<0.05	**0.01**	**0.05**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW172_230327*	MW172	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_230327*	MW174	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_230327*	MW179	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_230327*	MW180	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW181_230327*	MW181	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_230327*	MW182	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_230327*	MW183	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_230327*	MW184	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_230327*	MW185	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW186_230327*	MW186	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_230328	MW172	Intermediate	28 Mar 2023	SA01	**1.03**	**1.09**	**7.19**	**0.13**	**0.54**	-	<0.02	**0.1**	**0.32**	**1.69**	**0.17**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW176_230328*	MW176	Intermediate	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_230328	MW174	Intermediate	28 Mar 2023	SA01	**0.08**	**0.05**	**0.14**	<0.02	**0.1**	-	<0.02	<0.1	<0.02	**0.11**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_230328*	MW178	Intermediate	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_230328	MW179	Intermediate	28 Mar 2023	SA01	<0.02	<0.02	**0.07**	<0.02	**0.08**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW181_230328	MW181	Intermediate	28 Mar 2023	SA01	**0.09**	**0.04**	**0.04**	<0.02	**0.01**	-	<0.02	<0.1	**0.04**	**0.18**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW182_230328	MW182	Intermediate	28 Mar 2023	SA01	**0.15**	**0.15**	**1.2**	**0.02**	**0.4**	-	<0.02	<0.1	**0.09**	**0.52**	**0.06**	**0.19**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_230328	MW186	Intermediate	28 Mar 2023	SA01	**1.04**	**1.2**	**7.17**	**0.16**	**1.03**	-	<0.02	**0.1**	**0.29**	**1.7**	**0.17**	**0.32**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW178_230329	MW178	Intermediate	29 Mar 2023	SA01	**2.24**	**3.12**	**18**	**0.61**	**3.84**	-	<0.02	**0.3**	**0.95**	**4.2**	**0.91**	**2.81**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC103_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.02	**0.03**	**0.2**	<0.02	**0.26**	-	<0.02	<0.1	<0.02	**0.04**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW180_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.02	<0.02	**0.18**	<0.02	**0.29**	-	<0.02	<0.1	<0.02	**0.04**	<0.02	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC203_230329	MW180	Intermediate	29 Mar 2023	SA01	**0.02**	**0.03**	**0.26**	**0.01**	**0.32**	<0.01	<0.01	<0.05	**0.01**	**0.06**	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW183_230329	MW183	Intermediate	29 Mar 2023	SA01	**0.18**	**0.08**	**0.13**	<0.02	**0.06**	-	<0.02	<0.1	**0.07**	**0.27**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC101_230329	MW185	Intermediate	29 Mar 2023	SA01	**9.86**	**11.4**	**77**	**3.49**	**24.7**	-	<0.02	**0.6**	**3.47**	**18.8**	**2.24**	**4.74**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC201_230329	MW185	Intermediate	29 Mar 2023	SA01	**11**	**11**	**84**	**3.2**	**25**	<0.01	<0.01	**2.3**	**3.8**	**21**	**2.2**	**5.5**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW185_230329	MW185	Intermediate	29 Mar 2023	SA01	**8.67**	**10.7**	**77**	**3.55**	**29.7**	-	<0.02	**1**	**3.5**	**17.6**	**2**	**4.5**	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW176_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.16**	**0.18**	**1.66**	**0.08**	**3.46**	-	<0.02	<0.1	**0.07**	**0.35**	**0.04**	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC104_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.17**	**0.2**	**1.79**	**0.08**	**3.59**	-	<0.02	<0.1	**0.08**	**0.4**	**0.04**	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC204_230330	MW176	Intermediate	30 Mar 2023	SA01	**0.44**	**0.62**	**4.5**	**0.17**	**4.5**	<0.01	<0.01	**0.14**	**0.22**	**1.1**	**0.13**	**0.41**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW184_230330	MW184	Intermediate	30 Mar 2023	SA01	**0.94**	**1.09**	**7.05**	**0.2**	**1.14**	-	<0.02	**0.1**	**0.47**	**2.38**	**0.33**	**1.78**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW186_240617*	MW186	Intermediate	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_240618*	MW176	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_240618*	MW176	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_240618*	MW184	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619	MW185	Intermediate	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_240626*	MW185	Intermediate	26 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	**1.4**	**1.8**	**10**	**0.13**	**0.85**	<0.001	<0.001	**0.2**	**0.4**	**2.3**	**0.21**	**0.37**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	**0.35**	**0.22**	**0.27**	**0.001**	**0.022**	<0.001	<0.001	**0.043**	**0.088**	**0.45**	**0.036**	**0.029**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC204_241206	MW179	Intermediate	06 Dec 2024	SA01	**0.0091**	**0.0053**	**0.053**	**0.0028**	**0.097**	-	<0.0020	<0.020	<0.0040	**0.016**	**0.0025**	**0.0053**	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050	-
0932_QC104_241206	MW179	Intermediate	06 Dec 2024	SA01	**0.009**	**0.008**	**0.075**	**0.003**	**0.15**	<0.001	<0.001	<0.005	**0.016**	**0.023**	**0.003**	**0.008**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	**0.008**	**0.011**	**0.084**	**0.003**	**0.17**	<0.001	<0.001	**0.006**	**0.008**	**0.024**	**0.005**	**0.009**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC105_241206	MW184	Intermediate	06 Dec 2024	SA01	**3.8**	**4.7**	**41**	**1.4**	**12**	<0.1	<0.1	**0.86**	**1.8**	**14**	**1.5**	**7.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC205_241206	MW184	Intermediate	06 Dec 2024	SA01	**0.87**	**1**	**9.8**	**0.37**	**2.6**	-	<0.020	**0.18**	**0.38**	**2.4**	**0.37**	**1.8**	<0.010	<0.020	<0.020	<0.050	<0.10	<0.50	-
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	**1.2**	**1.6**	**11**	**0.29**	**2.9**	<0.0125	<0.001	**0.18**	**0.56**	**3.4**	**0.41**	**1.9**	**0.007**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	**0.8**	**1**	**13**	**1.1**	**73**	<0.12	<0.12	**0.15**	**0.31**	**1.8**	**0.15**	**0.57**	<0.12	<0.12	<0.001	<0.001	<0.001	<0.001	-
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	**0.02**	**0.026**	**0.2**	**0.006**	**0.22**	<0.001	<0.001	**0.006**	**0.011**	**0.059**	**0.005**	**0.026**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	**1.4**	**1.7**	**11**	**0.32**	**18**	<0.03	<0.03	**0.23**	**0.64**	**3.7**	**0.5**	**1.8**	<0.03	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	**3.7**	**5.3**	**35**	**0.98**	**31**	<0.07	<0.001	**0.63**	**1.8**	**12**	**0.98**	**2.6**	<0.07	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW172_250506*	MW172	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_250506*	MW172	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_250506*	MW174	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_250506*	MW174	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW172_250506	MW172	Intermediate	06 May 2025	SA01	**1.47**	**1.62**	**11.8**	**0.22**	**0.91**	<0.02	<0.02	**0.3**	**0.53**	**2.71**	**0.2**	**0.5**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW174_250506	MW174	Intermediate	06 May 2025	SA01	**0.34**	**0.21**	**0.32**	<0.02	**0.02**	<0.02	<0.02	<0.1	**0.11**	**0.49**	**0.03**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW179_250506*	MW179	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_250506*	MW179	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_250506	MW179	Intermediate	06 May 2025	SA01	<0.02	<0.02	**0.04**	<0.02	**0.08**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW180_250506*	MW180	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_250506*	MW180	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_250506	MW180	Intermediate	06 May 2025	SA01	**0.03**	**0.03**	**0.16**	<0.02	**0.21**	<0.02	<0.02	<0.1	<0.02	**0.05**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW182_250506*	MW182	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_250506*	MW182	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_250506*	MW183	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_250506*	MW183	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_250506	MW182	Intermediate	06 May 2025	SA01	**1.01**	**1.31**	**9.1**	**0.34**	**14.6**	**0.03**	<0.02	**0.2**	**0.6**	**3.33**	**0.42**	**1.82**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW183_250506	MW183	Intermediate	06 May 2025	SA01	**0.19**	**0.1**	**0.1**	<0.02	**0.02**	<0.02	<0.02	<0.1	**0.08**	**0.36**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW184_250506*	MW184	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250506*	MW184	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250506	MW184	Intermediate	06 May 2025	SA01	**0.33**	**0.38**	**3.41**	**0.14**	**1.1**	<0.02	<0.02	<0.1	**0.2**	**1.18**	**0.13**	**0.75**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW185_250506*	MW185	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250506*	MW185	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250506	MW185	Intermediate	06 May 2025	SA01	**0.27**	**0.34**	**5.33**	**1.11**	**39.9**	**0.07**	<0.02	<0.1	**0.13**	**0.71**	**0.05**	**0.37**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW176_250516	MW176	Intermediate	16 May 2025	SA01	**0.1**	**0.1**	**1.24**	**0.09**	**3.22**	<0.02	<0.02	<0.1	**0.06**	**0.27**	**0.02**	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW178_250516	MW178	Intermediate	16 May 2025	SA01	**2.02**	**2.26**	**16**	**0.37**	**2.96**	<0.02	<0.02	<0.1	**0.83**	**4.75**	**0.54**	**2.14**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW181_250516	MW181	Intermediate	16 May 2025	SA01	**0.11**	**0.04**	**0.05**	<0.02	**0.01**	<0.02	<0.02	<0.1	**0.06**	**0.25**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW186_250519	MW186	Intermediate	19 May 2025	SA01	**0.9**	**1.39**	**7.69**	**0.17**	**1.02**	<0.02	<0.02	**0.1**	**0.24**	**1.45**	**0.15**	**0.36**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW186_250617	MW186	Intermediate	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_250618	MW176	Intermediate	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250618	MW184	Intermediate	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250620	MW185	Intermediate	20 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932-PCMB19	MW060	Shallow	18 May 2016	SA01	**0.7**	-	**3.6**	-	**0.09**	-	<0.01	**0.24**	**0.41**	**1.5**	**0.13**	**0.25**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW123_200921*	MW123	Shallow	21 Sep 2020	SA01					-														
0932_QC201_200922	MW123	Shallow	22 Sep 2020	SA01	**4.6**	**9.3**	**77**	**2.8**	**120**	<0.1	<0.1	**1.3**	**1.8**	**17**	**1.9**	**7.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
0932_QC101_200922	MW123	Shallow	22 Sep 2020	SA01	**4.4**	**5.71**	**64**	**2.6**	**86.8**	-	<0.02	**1**	**2.65**	**14.8**	**2.34**	**6.38**	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW123_S_200922	MW123	Shallow	22 Sep 2020	SA01	**4.52**	**6.22**	**64.2**	**2.75**	**91.2**	-	<0.02	**1**	**2.67**	**14.9**	**2.33**	**6.4**	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW154_200922*	MW154	Shallow	22 Sep 2020	SA01	**0.7**	**0.82**	**5.62**	**0.15**	**1.03**	-	<0.02	**0.2**	**0.23**	**1.18**	**0.1**	**0.23**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW142_200924*	MW142	Shallow	24 Sep 2020	SA01	**8.26**	**16.7**	**193**	**9.38**	**286**	-	<0.02	**1.7**	**4.46**	**35.2**	**3.67**	**16.1**	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC106_200930	MW114	Shallow	30 Sep 2020	SA01	**1.26**	**1.74**	**20.3**	**0.92**	**14**	-	<0.04	<0.2	**0.44**	**2.58**	**0.24**	**0.86**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW114_S_200930	MW114	Shallow	30 Sep 2020	SA01	**1.37**	**1.62**	**17.5**	**1.08**	**16.6**	-	<0.04	<0.2	**0.43**	**2.82**	**0.26**	**0.87**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW114_200930*	MW114	Shallow	30 Sep 2020	SA01	**1.8**	**2.2**	**23**	**1.2**	**23**	<0.01	<0.01	**0.37**	**0.55**	**3.5**	**0.3**	**1.2**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW117_200930*	MW117	Shallow	30 Sep 2020	SA01	**2.66**	**1.38**	**7.02**	**0.37**	**34.5**	-	<0.04	**0.6**	**1.64**	**5.64**	**0.28**	**0.32**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.11	-
0932_MW119_200930*	MW119	Shallow	30 Sep 2020	SA01	**5.31**	**5.77**	**69.3**	**2.38**	**51.7**	-	<0.04	**0.4**	**3.4**	**20.6**	**2.59**	**12.8**	**0.04**	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW121_200930*	MW121	Shallow	30 Sep 2020	SA01	**0.46**	**1.27**	**17.9**	**0.57**	**12**	-	<0.04	<0.2	<0.04	**0.17**	**0.41**	**4.1**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW122_200930*	MW122	Shallow	30 Sep 2020	SA01	**10.5**	**19.4**	**211**	**12.7**	**275**	-	<0.04	**0.8**	**5.55**	**49.5**	**4.39**	**15.5**	**0.13**	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW123_200930*	MW123	Shallow	30 Sep 2020	SA01	**5.9**	**7.66**	**79.4**	**3.82**	**104**	-	<0.04	**0.7**	**2.84**	**21.9**	**2.59**	**8.43**	**0.07**	<0.04	<0.04	<0.04	<0.04	<0.10	-
0932_MW125_200930*	MW125	Shallow	30 Sep 2020	SA01	**12.9**	**19.4**	**197**	**5.76**	**84.1**	-	<0.04	**0.9**	**6.36**	**51**	**3.9**	**14.6**	**0.04**	<0.04	<0.04	<0.04	<0.04	<0.10	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW127_200930*	MW127	Shallow	30 Sep 2020	SA01	**3.35**	**4.02**	**42.6**	**1.54**	**29.6**	-	*<0.04*	*<0.2*	**2.18**	**12**	**1.22**	**4.73**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW129_200930*	MW129	Shallow	30 Sep 2020	SA01	**0.54**	**0.61**	**4.34**	**0.1**	**0.53**	-	*<0.04*	*<0.2*	**0.09**	**0.85**	**0.08**	**0.13**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW130_200930*	MW130	Shallow	30 Sep 2020	SA01	**0.58**	**0.68**	**4.52**	**0.12**	**0.48**	-	*<0.04*	*<0.2*	**0.12**	**0.85**	**0.07**	**0.13**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW133_200930*	MW133	Shallow	30 Sep 2020	SA01	**0.62**	**0.74**	**15.1**	**0.88**	**12.8**	-	*<0.04*	*<0.2*	**0.47**	**2.7**	**0.23**	**0.86**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.11*	-
0932_MW140_200930*	MW140	Shallow	30 Sep 2020	SA01	**1.26**	**1.25**	**15.8**	**0.76**	**17**	-	*<0.04*	*<0.2*	**0.48**	**3.49**	**0.25**	**0.71**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW141_S_200930	MW141	Shallow	30 Sep 2020	SA01	**1.25**	**1.42**	**20.3**	**2.02**	**65.8**	-	*<0.04*	*<0.2*	**0.41**	**2.87**	**0.27**	**1.1**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW142_200930*	MW142	Shallow	30 Sep 2020	SA01	**5.93**	**8.91**	**123**	**8.1**	**138**	-	*<0.04*	**0.6**	**3.18**	**25.7**	**1.91**	**11.3**	**0.11**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW154_200930*	MW154	Shallow	30 Sep 2020	SA01	**0.55**	**0.55**	**4.82**	**0.11**	**0.78**	-	*<0.04*	*<0.2*	**0.17**	**0.87**	**0.08**	**0.19**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW159_200930*	MW159	Shallow	30 Sep 2020	SA01	**3.39**	**2.03**	**6.26**	**0.1**	**0.89**	-	*<0.04*	*<0.2*	**1.06**	**7.11**	**0.39**	**0.19**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW161_S_200930	MW161	Shallow	30 Sep 2020	SA01	**0.32**	**0.15**	**0.48**	*<0.02*	**0.31**	-	*<0.02*	**0.1**	**0.24**	**1.12**	**0.1**	**0.17**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC104_200930	MW161	Shallow	30 Sep 2020	SA01	**0.32**	**0.14**	**0.51**	*<0.02*	**0.34**	-	*<0.02*	*<0.1*	**0.25**	**1.14**	**0.1**	**0.2**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_200930*	MW161	Shallow	30 Sep 2020	SA01	**0.41**	**0.18**	**0.61**	**0.02**	**0.53**	*<0.01*	*<0.01*	**0.27**	**0.34**	**1.4**	**0.12**	**0.23**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW120_201001*	MW120	Shallow	01 Oct 2020	SA01	**6.49**	**12.7**	**119**	**1.42**	**31.8**	-	*<0.04*	**0.9**	**5.25**	**42.5**	**3.02**	**9.44**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW134_201001*	MW134	Shallow	01 Oct 2020	SA01	**4.23**	**5.78**	**51.6**	**2.26**	**80.8**	-	*<0.04*	**0.3**	**2.32**	**13.7**	**1.96**	**9.62**	**0.05**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW137_201001*	MW137	Shallow	01 Oct 2020	SA01	**5.72**	**8.4**	**77.5**	**3.06**	**82**	-	*<0.04*	*<0.2*	**3.18**	**17.7**	**1.79**	**7.59**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW156_201001*	MW156	Shallow	01 Oct 2020	SA01	**0.85**	**0.95**	**7.63**	**0.43**	**12.6**	-	*<0.04*	*<0.2*	**0.35**	**1.86**	**0.13**	**0.46**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW157_201001*	MW157	Shallow	01 Oct 2020	SA01	**0.14**	**0.07**	**0.2**	*<0.02*	**0.12**	-	*<0.02*	**0.2**	**0.08**	**0.12**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_201001*	MW158	Shallow	01 Oct 2020	SA01	**6.88**	**5.85**	**32.9**	**0.95**	**12.6**	-	*<0.04*	**0.3**	**2.77**	**15.8**	**1.07**	**2.9**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW160_201001*	MW160	Shallow	01 Oct 2020	SA01	**4.76**	**4.82**	**20.4**	**0.42**	**8.53**	-	*<0.04*	**0.3**	**1.14**	**5.61**	**0.81**	**1.91**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.10*	-
0932_MW158_201110*	MW158	Shallow	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_201110*	MW160	Shallow	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_210524*	MW120	Shallow	24 May 2021	SA01	**4.69**	**8.88**	**76.1**	**1.49**	**24.4**	-	*<0.04*	**2**	**4.24**	**28.3**	**1.92**	**4.89**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW122_210524*	MW122	Shallow	24 May 2021	SA01	**10.5**	**22.6**	**210**	**16.5**	**392**	-	*<0.04*	**2.7**	**5.9**	**49.4**	**4.5**	**15.3**	**0.17**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW129_210524*	MW129	Shallow	24 May 2021	SA01	**0.9**	**1**	**6.78**	**0.12**	**0.59**	-	*<0.02*	**0.3**	**0.22**	**1.4**	**0.1**	**0.18**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW133_210524*	MW133	Shallow	24 May 2021	SA01	**0.73**	**1.52**	**13.1**	**0.45**	**6.49**	-	*<0.02*	*<0.1*	**0.3**	**2.4**	**0.2**	**0.47**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW134_210524*	MW134	Shallow	24 May 2021	SA01	**1.2**	**1.74**	**13.2**	**0.54**	**20.6**	-	*<0.02*	**0.2**	**0.92**	**4.52**	**0.57**	**2.61**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW141_210524*	MW141	Shallow	24 May 2021	SA01	**1.32**	**2.4**	**23.5**	**1.64**	**68.3**	-	*<0.02*	**0.3**	**0.57**	**3.34**	**0.33**	**1.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW142_210524*	MW142	Shallow	24 May 2021	SA01	**8.3**	**11**	**150**	**5.9**	**150**	*<0.01*	*<0.01*	**2**	**5.3**	**32**	**3.3**	**11**	**0.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_QC104_210524	MW142	Shallow	24 May 2021	SA01	**7.08**	**12.2**	**156**	**8.27**	**164**	-	*<0.04*	**2.3**	**4.22**	**29.7**	**2.85**	**12.9**	**0.08**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW142_210524	MW142	Shallow	24 May 2021	SA01	**7.4**	**15.6**	**154**	**9.28**	**176**	-	*<0.04*	**2.1**	**4.21**	**33.4**	**2.86**	**13.4**	**0.06**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW157_210524*	MW157	Shallow	24 May 2021	SA01	**0.15**	**0.06**	**0.2**	*<0.02*	**0.28**	-	*<0.02*	**0.3**	**0.22**	**0.19**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW159_210524*	MW159	Shallow	24 May 2021	SA01	**2.67**	**2.73**	**9.48**	**0.13**	**1.27**	-	*<0.02*	**0.6**	**1.12**	**6.57**	**0.58**	**0.27**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW161_210524*	MW161	Shallow	24 May 2021	SA01	**0.33**	**0.14**	**0.54**	*<0.02*	**0.46**	-	*<0.02*	**0.4**	**0.27**	**1.25**	**0.11**	**0.19**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW130_210525	MW130	Shallow	25 May 2021	SA01	**1.81**	**3.1**	**11.7**	**0.19**	**0.69**	-	*<0.02*	**0.5**	**0.44**	**2.73**	**0.25**	**0.31**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW156_210525*	MW156	Shallow	25 May 2021	SA01	**1.19**	**2.89**	**13.4**	**1.07**	**29.4**	-	*<0.02*	**0.4**	**0.53**	**2.53**	**0.26**	**0.61**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW158_210525*	MW158	Shallow	25 May 2021	SA01	**2.43**	**1.76**	**12.7**	**0.7**	**12.1**	-	*<0.02*	**1.1**	**1.21**	**5.19**	**0.42**	**0.67**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW160_210525	MW160	Shallow	25 May 2021	SA01	**4.71**	**4.18**	**18.9**	**0.44**	**0.83**	-	*<0.02*	**1**	**1.24**	**5.39**	**1**	**1.72**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_QC103_210526	MW114	Shallow	26 May 2021	SA01	**1.3**	**1.81**	**18.4**	**1.27**	**17**	-	*<0.02*	**0.3**	**0.48**	**3.03**	**0.26**	**0.74**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW114_210526*	MW114	Shallow	26 May 2021	SA01	**1.4**	**1.8**	**21**	**0.82**	**18**	*<0.01*	*<0.01*	**0.42**	**0.57**	**3.3**	**0.32**	**1.1**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW114_210526	MW114	Shallow	26 May 2021	SA01	**1.41**	**1.8**	**19.2**	**1.02**	**19.3**	-	*<0.04*	*<0.2*	**0.54**	**2.96**	**0.21**	**0.78**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW117_210526*	MW117	Shallow	26 May 2021	SA01	**2.44**	**1.38**	**8.9**	**0.3**	**34.8**	-	*<0.04*	**0.6**	**1.56**	**5.19**	**0.2**	**0.32**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW119_210526*	MW119	Shallow	26 May 2021	SA01	**0.04**	*<0.02*	**0.18**	*<0.02*	**0.06**	-	*<0.02*	*<0.1*	*<0.02*	**0.06**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW121_210526*	MW121	Shallow	26 May 2021	SA01	**1.13**	**1.95**	**21.7**	**0.55**	**11.8**	-	*<0.04*	*<0.2*	**1.02**	**5.23**	**0.91**	**4.66**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-
0932_MW123_210526*	MW123	Shallow	26 May 2021	SA01	**6.24**	**10**	**94.7**	**6.48**	**140**	-	*<0.04*	**0.8**	**3.39**	**21.7**	**2.9**	**10.2**	**0.04**	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.09*	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW130_210526*	MW130	Shallow	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_210526*	MW125	Shallow	26 May 2021	SA01	**14.5**	**30.6**	**200**	**5.21**	**84.9**	-	<0.04	**1.4**	**8.45**	**60.9**	**4.12**	**14**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW137_210526*	MW137	Shallow	26 May 2021	SA01	**4.56**	**6.48**	**59.8**	**2.49**	**94.7**	-	<0.04	<0.2	**2.44**	**16.3**	**1.41**	**6.6**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW140_210526*	MW140	Shallow	26 May 2021	SA01	**1.68**	**1.87**	**17.2**	**0.7**	**17.1**	-	<0.04	<0.2	**0.64**	**3.58**	**0.23**	**0.7**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW154_210526*	MW154	Shallow	26 May 2021	SA01	**0.93**	**0.79**	**6.47**	**0.05**	**0.86**	-	<0.04	<0.2	**0.26**	**1.23**	**0.08**	**0.21**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW160_210526*	MW160	Shallow	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW060_210708*	MW060	Shallow	08 Jul 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_210728*	MW114	Shallow	28 Jul 2021	SA01	**1.22**	**2**	**17.9**	**1.37**	**22.2**	-	<0.02	**0.3**	**0.46**	**2.61**	**0.26**	**0.85**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW117_210728*	MW117	Shallow	28 Jul 2021	SA01	**2.16**	**1.3**	**7.74**	**0.47**	**30.7**	-	<0.02	**1.2**	**1.38**	**4.8**	**0.23**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW129_210728*	MW129	Shallow	28 Jul 2021	SA01	**0.91**	**0.9**	**5.92**	**0.13**	**0.56**	-	<0.02	**0.2**	**0.2**	**1.21**	**0.11**	**0.17**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW140_210728*	MW140	Shallow	28 Jul 2021	SA01	**1.41**	**1.98**	**16.8**	**0.92**	**13.2**	-	<0.02	**0.5**	**0.56**	**2.92**	**0.3**	**0.85**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW141_210728*	MW141	Shallow	28 Jul 2021	SA01	**1.27**	**2.06**	**21.1**	**2.64**	**80.4**	-	<0.02	**0.3**	**0.44**	**2.91**	**0.29**	**1.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW159_210728*	MW159	Shallow	28 Jul 2021	SA01	**2.58**	**3.46**	**11.1**	**0.15**	**0.83**	-	<0.02	**0.5**	**1.07**	**7.55**	**0.64**	**0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW122_210729*	MW122	Shallow	29 Jul 2021	SA01	**11.4**	**12**	**199**	**20.8**	**554**	-	<0.04	**1.3**	**6.46**	**48.6**	**4.12**	**19.4**	**0.16**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW130_210729*	MW130	Shallow	29 Jul 2021	SA01	**1.84**	**1.51**	**12.9**	**0.23**	**0.81**	-	<0.02	**0.3**	**0.58**	**3.53**	**0.22**	**0.37**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW142_210729*	MW142	Shallow	29 Jul 2021	SA01	**6.58**	**7.94**	**185**	**24.6**	**370**	-	<0.04	**1.1**	**4.7**	**37.2**	**2.81**	**16**	**0.17**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW156_210729*	MW156	Shallow	29 Jul 2021	SA01	**1**	**0.57**	**8.99**	**0.64**	**15.8**	-	<0.02	**0.4**	**0.5**	**2.38**	**0.15**	**0.46**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW158_210729*	MW158	Shallow	29 Jul 2021	SA01	**2.17**	**0.73**	**6.42**	**0.31**	**6.52**	-	<0.02	**0.9**	**1.11**	**4.53**	**0.17**	**0.31**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW119_210730*	MW119	Shallow	30 Jul 2021	SA01	**4.04**	**3.3**	**50.8**	**1.66**	**34**	-	<0.04	**0.2**	**2.28**	**13.3**	**1.57**	**8.66**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW121_210730*	MW121	Shallow	30 Jul 2021	SA01	**1.12**	**0.75**	**18.2**	**0.56**	**11.5**	-	<0.02	**0.5**	**0.82**	**5.07**	**0.76**	**3.96**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW125_210730*	MW125	Shallow	30 Jul 2021	SA01	**10.8**	**14.6**	**182**	**6.53**	**101**	-	<0.04	**0.9**	**6.61**	**45.1**	**3.24**	**14.4**	**0.04**	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW134_210730*	MW134	Shallow	30 Jul 2021	SA01	**1.15**	**0.72**	**12.5**	**0.72**	**18.4**	-	<0.02	**0.2**	**0.85**	**4.27**	**0.5**	**2.59**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW137_210730*	MW137	Shallow	30 Jul 2021	SA01	**3.91**	**3.22**	**58.6**	**2.45**	**76**	-	<0.04	<0.2	**2.04**	**13.4**	**1.18**	**6.18**	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09	-
0932_MW160_210730*	MW160	Shallow	30 Jul 2021	SA01	**3.93**	**3.07**	**18.4**	**0.37**	**0.71**	-	<0.02	**0.8**	**1.29**	**5.44**	**0.74**	**1.84**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW161_210730*	MW161	Shallow	30 Jul 2021	SA01	**0.19**	**0.04**	**0.31**	<0.02	**0.25**	-	<0.02	**0.6**	**0.17**	**0.62**	**0.05**	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW120_210803*	MW120	Shallow	03 Aug 2021	SA01	**5.3**	**5.37**	**77.1**	**1.66**	**23.2**	-	<0.02	**1.8**	**4.47**	**26**	**2**	**6.94**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW123_210803*	MW123	Shallow	03 Aug 2021	SA01	**6.7**	**11**	**140**	**4.1**	**150**	**0.04**	<0.01	**1.2**	**2.7**	**22**	**2.7**	**8.8**	**0.12**	**0.04**	<0.01	<0.01	<0.01	<0.01	-
0932_MW123_210803	MW123	Shallow	03 Aug 2021	SA01	**8.02**	**6.93**	**101**	**2.94**	**84.3**	-	<0.02	**1.8**	**3.76**	**18.9**	**2.54**	**9.68**	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_QC105_210803	MW123	Shallow	03 Aug 2021	SA01	**7.65**	**7.6**	**107**	**3.64**	**87.7**	-	<0.02	**1.6**	**3.41**	**19.7**	**2.56**	**9.63**	**0.06**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW133_210803*	MW133	Shallow	03 Aug 2021	SA01	**0.83**	**0.65**	**13**	**0.81**	**5.43**	-	<0.02	<0.1	**0.3**	**2.63**	**0.13**	**0.48**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW154_210803*	MW154	Shallow	03 Aug 2021	SA01	**0.88**	**0.54**	**7.74**	**0.2**	**1.34**	-	<0.02	**0.2**	**0.27**	**1.63**	**0.1**	**0.25**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW157_210803*	MW157	Shallow	03 Aug 2021	SA01	**0.15**	**0.03**	**0.17**	<0.02	**0.12**	-	<0.02	**0.2**	**0.2**	**0.14**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW060_220608*	MW060	Shallow	08 Jun 2022	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_230327*	MW154	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_230327*	MW119	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_230327*	MW120	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_230327*	MW121	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW122_230327*	MW122	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_230327*	MW123	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_230327*	MW125	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_230327*	MW129	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW130_230327*	MW130	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW134_230327*	MW134	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW137_230327*	MW137	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW140_230327*	MW140	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_230327*	MW141	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_230327*	MW142	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_230327*	MW156	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW159_230327*	MW159	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW161_230327*	MW161	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_230328*	MW114	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW117_230328*	MW117	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_230328	MW129	Shallow	28 Mar 2023	SA01	**1.59**	**1.65**	**9.54**	**0.17**	**0.68**	-	<0.02	**0.2**	**0.52**	**2.6**	**0.21**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW130_230328	MW130	Shallow	28 Mar 2023	SA01	**1.97**	**2.14**	**11.5**	**0.24**	**0.98**	-	<0.02	**0.2**	**0.54**	**3.01**	**0.24**	**0.35**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW134_230328	MW134	Shallow	28 Mar 2023	SA01	**1.25**	**1.46**	**11.9**	**0.55**	**17.4**	-	<0.02	**0.2**	**0.69**	**3.97**	**0.49**	**2.15**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW157_230328*	MW157	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_230328*	MW158	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_230329	MW114	Shallow	29 Mar 2023	SA01	**1.24**	**2.03**	**8.29**	**2.37**	**27.4**	-	<0.02	**0.4**	**0.49**	**2.45**	**0.25**	**0.9**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW119_230329	MW119	Shallow	29 Mar 2023	SA01	**3.21**	**4.44**	**37.3**	**1.7**	**40**	-	<0.02	**0.5**	**1.6**	**9.89**	**1.37**	**6.8**	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW120_230329	MW120	Shallow	29 Mar 2023	SA01	**5.07**	**7.31**	**52.6**	**1.56**	**38.2**	-	<0.02	**0.6**	**2.81**	**19.8**	**1.34**	**3.64**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW121_230329	MW121	Shallow	29 Mar 2023	SA01	**0.9**	**1.32**	**10.7**	**0.46**	**7.15**	-	<0.02	**0.3**	**0.66**	**3.02**	**0.67**	**3.03**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW125_230329	MW125	Shallow	29 Mar 2023	SA01	**9.07**	**15.5**	**128**	**4.01**	**73.6**	-	<0.02	**1.2**	**4.86**	**31.6**	**2.63**	**9.12**	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW137_230329	MW137	Shallow	29 Mar 2023	SA01	**2.74**	**3.7**	**32.7**	**1.35**	**53.9**	-	<0.02	**0.3**	**1.3**	**7.56**	**0.79**	**4.12**	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW140_230329	MW140	Shallow	29 Mar 2023	SA01	**1.53**	**2.22**	**10.7**	**0.72**	**6.19**	-	<0.02	**0.4**	**0.56**	**3.15**	**0.29**	**0.73**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW141_230329	MW141	Shallow	29 Mar 2023	SA01	**1.43**	**2.01**	**21.2**	**2.22**	**94.2**	-	<0.02	**0.1**	**0.47**	**3.08**	**0.24**	**0.79**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW156_230329	MW156	Shallow	29 Mar 2023	SA01	**1.36**	**1.5**	**6.31**	**0.97**	**22.3**	-	<0.02	**0.3**	**0.51**	**2.57**	**0.22**	**0.52**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW160_230329*	MW160	Shallow	29 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_230329	MW158	Shallow	29 Mar 2023	SA01	**1.58**	**2.58**	**18.5**	**1.32**	**26.2**	-	<0.02	**1.6**	**0.74**	**3.51**	**0.41**	**0.97**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW159_230329	MW159	Shallow	29 Mar 2023	SA01	**1.43**	**2.32**	**8.49**	**0.13**	**1.23**	-	<0.02	**0.4**	**0.69**	**2.66**	**0.45**	**0.33**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW161_230329	MW161	Shallow	29 Mar 2023	SA01	**0.51**	**0.44**	**1.54**	<0.02	**0.05**	-	<0.02	<0.1	**0.26**	**1.1**	**0.12**	**0.24**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW117_230330	MW117	Shallow	30 Mar 2023	SA01	**1.94**	**1.4**	**9.43**	**0.35**	**16.1**	-	<0.02	**0.5**	**1.17**	**3.98**	**0.22**	**0.39**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW122_230330	MW122	Shallow	30 Mar 2023	SA01	**4.23**	**7.43**	**74.1**	**6.18**	**177**	-	<0.02	**0.7**	**2.24**	**15.2**	**1.71**	**6.85**	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW123_230330	MW123	Shallow	30 Mar 2023	SA01	**10.3**	**17.4**	**88.2**	**5.42**	**75.6**	-	<0.02	**1.1**	**3.78**	**22.3**	**3.09**	**9.86**	**0.07**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW142_230330	MW142	Shallow	30 Mar 2023	SA01	**4.52**	**9.89**	**130**	**19.1**	**221**	-	<0.02	**0.8**	**2.78**	**21.1**	**1.98**	**11.1**	**0.21**	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW157_230330	MW157	Shallow	30 Mar 2023	SA01	**0.27**	**0.11**	**0.43**	<0.02	**0.27**	-	<0.02	<0.1	**0.15**	**0.21**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW160_230330	MW160	Shallow	30 Mar 2023	SA01	**3.37**	**3.85**	**13.5**	**0.29**	**0.69**	-	<0.02	**0.3**	**0.88**	**4.01**	**0.6**	**1.43**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW133_230331	MW133	Shallow	31 Mar 2023	SA01	**0.96**	**1.44**	**15.2**	**0.59**	**5.74**	-	<0.02	<0.1	**0.19**	**1.89**	**0.12**	**0.42**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW154_230331	MW154	Shallow	31 Mar 2023	SA01	**1.52**	**2.09**	**11.3**	**0.14**	**0.72**	-	<0.02	**0.2**	**0.47**	**2.28**	**0.19**	**0.29**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW060_230608*	MW060	Shallow	08 Jun 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_240616*	MW121	Shallow	16 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_240617	MW121	Shallow	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_240617*	MW156	Shallow	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_240618*	MW123	Shallow	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW139_240618*	MW139	Shallow	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_240619*	MW114	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619*	MW141	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619*	MW141	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_240619*	MW142	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														

Field ID	Location Code	Aquifer	Date	Monitoring Zone																		
0932_MW154_240619*	MW154	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_240626*	MW140	Shallow	26 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW117_240627*	MW117	Shallow	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW192_240627*	MW192	Shallow	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	**3.7**	**5**	**42**	**1.2**	**37**	*<0.06*	*<0.06*	**0.8**	**2.1**	**13**	**1.6**	**7**	*<0.06*	*<0.06*	*<0.001*	*<0.001*	*<0.001*	*<0.06*	-
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	**1.9**	**2**	**9.3**	**0.089**	**0.5**	*<0.001*	*<0.001*	**0.26**	**0.46**	**2.6**	**0.18**	**0.26**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	**1.4**	**1.7**	**14**	**0.36**	**7.1**	*<0.0125*	*<0.0125*	**0.24**	**0.47**	**2.7**	**0.19**	**0.43**	*<0.0125*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0125*	-
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	**9.8**	**13**	**84**	**3.1**	**33**	*<0.06*	*<0.001*	**1.1**	**3.2**	**18**	**2.2**	**4.6**	*<0.06*	*<0.06*	*<0.001*	*<0.001*	*<0.001*	*<0.06*	-
0932_QC103_241206	MW141	Shallow	06 Dec 2024	SA01	**12**	**11**	**87**	**2.9**	**34**	*<0.0625*	*<0.001*	**1.2**	**4.3**	**21**	**2.5**	**5.4**	*<0.0625*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_QC203_241206	MW141	Shallow	06 Dec 2024	SA01	**11**	**16**	**100**	**7.5**	**42**	-	*<0.020*	**1.9**	**3.5**	**19**	**3**	**6.7**	**0.04**	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	**2.4**	**3.7**	**40**	**1.1**	**16**	*<0.1*	*<0.1*	**0.61**	**1.3**	**13**	**0.94**	**4.5**	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	-
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	**3.7**	**3.3**	**15**	**0.21**	**0.79**	*<0.001*	*<0.001*	**0.32**	**0.97**	**4.3**	**0.6**	**1.3**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	*<0.001*	*<0.001*	**0.013**	*<0.001*	**0.021**	*<0.001*	*<0.001*	*<0.005*	*<0.001*	**0.002**	*<0.001*	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	**69**	**85**	**940**	**20**	**460**	*<0.001*	*<0.001*	**12**	**32**	**210**	**33**	**98**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	**0.21**	**0.22**	**2.4**	**0.076**	**1.5**	*<0.001*	*<0.001*	**0.053**	**0.11**	**0.62**	**0.093**	**0.41**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	**2.3**	**2.8**	**24**	*<0.001*	**0.94**	*<0.001*	*<0.001*	*<0.005*	**0.7**	**2.6**	**0.24**	**1.1**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	**6.3**	**5.2**	**43**	**2.2**	**42**	**0.058**	*<0.001*	**2.1**	**2**	**10**	**0.96**	**2.2**	**0.005**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW154_250506*	MW154	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_250506*	MW154	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506*	MW119	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506*	MW119	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_250506*	MW120	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_250506*	MW120	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506	MW119	Shallow	06 May 2025	SA01	**4.61**	**8.91**	**65.2**	**4.31**	**74.1**	**0.26**	*<0.02*	**1.5**	**3.54**	**21.2**	**2.57**	**11.2**	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW120_250506	MW120	Shallow	06 May 2025	SA01	**2.27**	**2.98**	**20.7**	**0.94**	**12.4**	*<0.02*	*<0.02*	**0.6**	**1.35**	**7.97**	**0.68**	**2.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW125_250506*	MW125	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_250506*	MW125	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506*	MW129	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506*	MW129	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_250506*	MW133	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_250506*	MW133	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_250506	MW125	Shallow	06 May 2025	SA01	**2.93**	**6.06**	**47.7**	**3.12**	**49.1**	**0.06**	*<0.02*	**0.7**	**1.64**	**10.9**	**0.98**	**4.52**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW134_250506*	MW134	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW134_250506*	MW134	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506	MW129	Shallow	06 May 2025	SA01	**1.66**	**1.68**	**8.85**	**0.13**	**0.62**	*<0.02*	*<0.02*	**0.4**	**0.53**	**2.73**	**0.15**	**0.28**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC102_250506	MW133	Shallow	06 May 2025	SA01	**1.07**	**1.16**	**12.5**	**0.42**	**5.79**	*<0.02*	*<0.02*	**0.1**	**0.36**	**1.75**	**0.12**	**0.33**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW133_250506	MW133	Shallow	06 May 2025	SA01	**0.92**	**1.16**	**12.7**	**0.43**	**6.06**	*<0.02*	*<0.02*	**0.1**	**0.36**	**1.81**	**0.13**	**0.36**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC202_250506	MW133	Shallow	06 May 2025	SA01	**0.71**	**1.2**	**12**	**0.38**	**6.1**	*<0.01*	*<0.01*	**0.22**	**0.18**	**1.5**	**0.11**	**0.39**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW134_250506	MW134	Shallow	06 May 2025	SA01	**0.23**	**0.25**	**1.7**	**0.03**	**0.34**	*<0.02*	*<0.02*	*<0.1*	**0.14**	**0.76**	**0.08**	**0.24**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW141_250506*	MW141	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250506*	MW141	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250506*	MW141	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_250506*	MW142	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_250506*	MW142	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250506	MW141	Shallow	06 May 2025	SA01	**9.7**	**13.2**	**65.8**	**3.59**	**18.5**	*<0.02*	*<0.02*	**2.1**	**3.77**	**18.8**	**1.98**	**5.36**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW142_250506	MW142	Shallow	06 May 2025	SA01	**0.24**	**0.71**	**15.4**	**3.06**	**83.4**	**0.08**	*<0.02*	*<0.1*	**0.28**	**2.88**	**0.14**	**1.29**	**0.05**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW154_250506	MW154	Shallow	06 May 2025	SA01	**1.49**	**1.99**	**13.6**	**0.2**	**1.12**	*<0.02*	*<0.02*	**0.4**	**0.49**	**2.65**	**0.17**	**0.37**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW158_250506*	MW158	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_250506*	MW158	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_250506*	MW160	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_250506*	MW160	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_250506	MW158	Shallow	06 May 2025	SA01	**2.98**	**4.21**	**31.8**	**1.44**	**28.3**	**0.06**	*<0.02*	**0.8**	**1.61**	**6.51**	**0.54**	**1.6**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW160_250506	MW160	Shallow	06 May 2025	SA01	**3.22**	**3.86**	**14.2**	**0.41**	**0.95**	*<0.02*	*<0.02*	**0.5**	**0.91**	**4.31**	**0.6**	**1.63**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC103_250506	MW160	Shallow	06 May 2025	SA01	**3.37**	**4.1**	**14.3**	**0.43**	**0.97**	*<0.02*	*<0.02*	**0.6**	**0.92**	**4.37**	**0.59**	**1.57**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC203_250506	MW160	Shallow	06 May 2025	SA01	**4.2**	**4.2**	**15**	**0.48**	**1.8**	*<0.01*	*<0.01*	**0.65**	**1**	**5.1**	**0.63**	**1.8**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW121_250516	MW121	Shallow	16 May 2025	SA01	**1.2**	**1.6**	**14.8**	**0.58**	**13.2**	*<0.02*	*<0.02*	*<0.1*	**0.99**	**4.6**	**0.64**	**3.56**	**0.02**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW127_250516	MW127	Shallow	16 May 2025	SA01	**5.82**	**6.88**	**54.6**	**1.95**	**50.4**	**0.16**	*<0.02*	**2**	**4.58**	**18.7**	**2.03**	**8.66**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW137_250516	MW137	Shallow	16 May 2025	SA01	**5.92**	**8.22**	**76.2**	**2.25**	**55**	**0.16**	*<0.02*	**1.4**	**3.55**	**20**	**1.81**	**7.8**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW157_250516	MW157	Shallow	16 May 2025	SA01	**0.27**	**0.12**	**0.34**	*<0.02*	**0.23**	*<0.02*	*<0.02*	**0.5**	**0.22**	**0.24**	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW161_250516	MW161	Shallow	16 May 2025	SA01	**0.1**	**0.06**	**0.48**	*<0.02*	**0.11**	*<0.02*	*<0.02*	**1.3**	**0.26**	**0.18**	**0.03**	**0.13**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW114_250519	MW114	Shallow	19 May 2025	SA01	*<0.02*	**0.04**	**0.72**	**0.21**	**9.32**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.08**	*<0.02*	**0.07**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW117_250519	MW117	Shallow	19 May 2025	SA01	**4.09**	**3.67**	**16.7**	**0.36**	**17.8**	*<0.02*	*<0.02*	**1.3**	**1.88**	**9.54**	**0.44**	**0.74**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW122_250519	MW122	Shallow	19 May 2025	SA01	**3.13**	**5.98**	**67.5**	**4.94**	**150**	**0.04**	*<0.02*	**0.7**	**1.78**	**13.9**	**0.97**	**6.42**	**0.08**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_PW139_250519	MW139	Shallow	19 May 2025	SA01	**0.007**	**0.007**	**0.11**	**0.007**	**0.73**	**0.001**	**0.002**	*<0.005*	**0.005**	**0.028**	**0.005**	**0.018**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW140_250519	MW140	Shallow	19 May 2025	SA01	**1.53**	**2.43**	**16.9**	**0.68**	**10.1**	*<0.02*	*<0.02*	**0.3**	**0.53**	**3.29**	**0.24**	**0.7**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_PW140_250520	MW140	Shallow	20 May 2025	SA01	**0.004**	**0.005**	**0.069**	**0.006**	**0.37**	*<0.001*	*<0.001*	*<0.005*	**0.003**	**0.019**	**0.003**	**0.009**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW117_250617	MW117	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_250617	MW121	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_250617	MW156	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW192_250617	MW192	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_250618	MW123	Shallow	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250620	MW141	Shallow	20 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_250624	MW114	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_250624	MW140	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_250624	MW154	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_000100*	MW140	Shallow		SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932-F03MW	MW036	Unknown	18 May 2016	SA01	**0.45**	-	**7.4**	-	**0.3**	-	*<0.01*	**0.06**	**0.24**	**2.3**	**0.32**	**0.7**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW059_210708*	MW059	Unknown	08 Jul 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																
0932_MW059_220608*	MW059	Unknown	08 Jun 2022	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_160517*	MW034	Shallow	17 May 2016	SA02	<0.01	-	**0.03**	-	**0.01**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW021_180409*	MW021	Shallow	09 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_180409*	MW034	Shallow	09 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021_180409	MW021	Shallow	09 Apr 2018	SA02	**0.02**	**0.03**	**0.34**	**0.02**	**1.4**	-	<0.01	<0.05	**0.01**	**0.09**	**0.01**	**0.04**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW034_180409	MW034	Shallow	09 Apr 2018	SA02	<0.01	<0.01	**0.12**	<0.01	**0.31**	-	<0.01	<0.05	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW022_180410*	MW022	Shallow	10 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022_180410	MW022	Shallow	10 Apr 2018	SA02	**5.9**	**8.8**	**100**	**4.6**	**150**	-	<0.2	**1.8**	**3.6**	**22**	**1.5**	**16**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
0932_MW023_180411*	MW023	Shallow	11 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW024_180411*	MW024	Shallow	11 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023_180411	MW023	Shallow	11 Apr 2018	SA02	**8.1**	**15**	**170**	**9.8**	**230**	-	<0.2	**3.1**	**8.8**	**42**	**3.8**	**26**	<0.2	<0.2	<0.2	**2.8**	<0.2	*17*	-
QC130_180411	MW023	Shallow	11 Apr 2018	SA02	**8**	**15**	**170**	**11**	**240**	-	<0.2	**2.8**	**7.9**	**42**	**3.7**	**27**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
QC230_180411	MW023	Shallow	11 Apr 2018	SA02	**1.42**	**1.71**	**28.9**	**1.84**	**50.2**	-	<0.02	**0.2**	**0.78**	**6.93**	**0.47**	**6**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
MW024_180411	MW024	Shallow	11 Apr 2018	SA02	**6.5**	**10**	**89**	**5.8**	**160**	-	<0.2	**2.6**	**5.1**	**26**	**2.2**	**9.6**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	**0.013**	**0.022**	**0.22**	**0.014**	**0.69**	**0.005**	**0.001**	<0.005	**0.005**	**0.049**	**0.01**	**0.033**	**0.005**	**0.004**	<0.001	<0.001	<0.001	<0.001	-
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	**0.002**	**0.004**	**0.043**	**0.002**	**0.19**	<0.001	<0.001	<0.005	**0.002**	**0.004**	<0.001	**0.004**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	**0.23**	**0.65**	**9.2**	**0.43**	**52**	**0.21**	<0.07	**0.36**	**0.24**	**3.3**	**0.087**	**0.94**	**0.005**	**0.003**	<0.001	<0.001	<0.001	<0.001	-
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	**13**	**21**	**240**	**17**	**500**	<0.3	<0.3	**5.3**	**11**	**66**	**5**	**31**	<0.3	<0.3	<0.001	<0.001	<0.001	<0.001	-
0932_MW021_250506*	MW021	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_250506*	MW021	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506*	MW023	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506*	MW023	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_250506	MW021	Shallow	06 May 2025	SA02	<0.02	<0.02	**0.23**	<0.02	**0.68**	<0.02	<0.02	<0.1	<0.02	**0.03**	<0.02	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW034_250506*	MW034	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_250506*	MW034	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506	MW023	Shallow	06 May 2025	SA02	**5.37**	**8.03**	**78.8**	**6.54**	**158**	**0.96**	**0.05**	**2.1**	**4.86**	**29.8**	**2**	**13.8**	**0.06**	<0.04	<0.04	<0.04	<0.04	<0.09	<0.09
0932_MW034_250506	MW034	Shallow	06 May 2025	SA02	<0.02	<0.02	**0.04**	<0.02	**0.13**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW201_250508*	MW201	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW201_250508*	MW201	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508*	MW022	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508*	MW022	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508	MW022	Shallow	08 May 2025	SA02	**0.57**	**0.72**	**8.27**	**0.4**	**27.5**	**0.12**	<0.02	**0.2**	**0.33**	**2.22**	**0.15**	**1.2**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW201_250508	MW201	Shallow	08 May 2025	SA02	<0.002	**0.04**	**0.692**	**0.018**	**0.187**	-	<0.002	**0.05**	**0.042**	**0.2**	**0.042**	**0.242**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW003_180409*	MW003	Shallow	09 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW003_180409	MW003	Shallow	09 Apr 2018	SA03	**0.01**	**0.02**	**0.12**	<0.01	**0.07**	-	<0.01	<0.05	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW004_180410*	MW004	Shallow	10 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004_180410	MW004	Shallow	10 Apr 2018	SA03	**0.02**	**0.02**	**0.17**	<0.01	**0.09**	-	<0.01	<0.05	**0.02**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW010_180411*	MW010	Shallow	11 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW010_180411	MW010	Shallow	11 Apr 2018	SA03	**0.01**	**0.01**	**0.06**	<0.01	**0.03**	-	<0.01	<0.05	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW011_180412*	MW011	Shallow	12 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
MW011_180412	MW011	Shallow	12 Apr 2018	SA03	<0.01	<0.01	**0.02**	<0.01	***<0.01***	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	**0.007**	**0.009**	**0.042**	**0.003**	**0.032**	<0.001	<0.001	<0.005	**0.003**	**0.008**	**0.002**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	**0.009**	**0.007**	**0.042**	**0.001**	**0.028**	<0.001	<0.001	<0.005	**0.003**	**0.007**	**0.001**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	**0.007**	**0.003**	**0.018**	<0.001	**0.021**	<0.001	<0.001	<0.005	**0.001**	**0.003**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	**0.006**	**0.002**	**0.011**	<0.001	**0.014**	<0.001	<0.001	<0.005	**0.007**	**0.005**	**0.002**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_QC201_241206	MW203	Shallow	06 Dec 2024	SA03	**0.0036**	**0.0031**	**0.02**	<0.0010	**0.016**	-	<0.0020	<0.020	<0.0040	**0.0031**	**0.00065**	**0.00087**	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050	-
0932_QC101_241206	MW203	Shallow	06 Dec 2024	SA03	**0.005**	**0.002**	**0.013**	<0.001	**0.019**	<0.001	<0.001	<0.005	**0.002**	**0.003**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	**0.002**	**0.002**	**0.01**	<0.001	**0.024**	<0.001	<0.001	<0.005	**0.003**	**0.003**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW010_250502*	MW010	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_250502*	MW010	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_250502*	MW202	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_250502*	MW202	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	<0.02	<0.02	**0.04**	<0.02	**0.02**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	**0.026**	**0.005**	**0.034**	<0.003	**0.021**	-	<0.003	<0.01	**0.003**	**0.011**	<0.003	**0.003**	<0.003	<0.003	<0.003	<0.003	<0.003	<0.007	<0.007
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	<0.02	<0.02	**0.03**	<0.02	**0.01**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	**0.009**	**0.003**	**0.026**	<0.002	**0.011**	-	<0.002	<0.01	**0.003**	**0.006**	**0.002**	**0.002**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW004_250505*	MW004	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_250505*	MW004	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_250505	MW004	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.04**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW203_250505*	MW203	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW203_250505*	MW203	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC102_250505	MW203	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.01**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.01	**0.01**	<0.01	**0.03**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW203_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.01	**0.02**	<0.01	**0.04**	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW203_250505	MW203	Shallow	05 May 2025	SA03	<0.02	<0.02	**0.03**	<0.02	**0.05**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW011_250506*	MW011	Shallow	06 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_250506*	MW011	Shallow	06 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.02	<0.02	**0.02**	<0.02	***<0.01***	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	**0.005**	**0.003**	**0.017**	<0.002	**0.006**	-	<0.002	<0.01	<0.002	**0.003**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW019_180405*	MW019	Shallow	05 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW019_180405	MW019	Shallow	05 Apr 2018	SA04	**10**	**11**	**79**	**7.3**	**160**	-	<0.2	**2.4**	**4.4**	**20**	**2.6**	**5**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-
0932_MW018_180406*	MW018	Shallow	06 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_180406*	MW057	Shallow	06 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW018_180406	MW018	Shallow	06 Apr 2018	SA04	**42**	**58**	**300**	**49**	**960**	-	<0.01	**9.6**	**20**	**100**	**11**	**24**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW057_180406	MW057	Shallow	06 Apr 2018	SA04	**0.87**	**1.1**	**2.1**	**0.02**	**4.5**	-	**0.02**	**0.08**	**0.15**	**0.82**	**0.07**	**0.07**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW057_240625*	MW057	Shallow	25 Jun 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	**20**	**21**	**180**	**16**	**550**	**0.81**	<0.125	**1.3**	**8.9**	**59**	**6.1**	**11**	<0.125	<0.125	<0.125	<0.001	<0.001	<0.001	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW019_241205	MW019	Shallow	05 Dec 2024	SA04	**3**	**3.5**	**30**	**1.3**	**67**	**0.11**	*<0.0625*	**0.33**	**1.5**	**8.4**	**0.92**	**1.6**	*<0.0625*	*<0.0625*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	**3.2**	**4.5**	**34**	**2.4**	**69**	-	**0.038**	**0.94**	**1.4**	**7.7**	**1.1**	**1.8**	**0.038**	*<0.020*	*<0.020*	*<0.050*	*<0.10*	*<0.50*	-
0932_QC101_241205	MW019	Shallow	05 Dec 2024	SA04	**3.1**	**3.7**	**33**	**1.4**	**70**	*<0.125*	*<0.125*	**0.27**	**1.4**	**8.5**	**0.95**	**1.7**	*<0.125*	*<0.125*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW204_241205	MW204	Shallow	05 Dec 2024	SA04	**1.1**	**1.1**	**9.6**	**0.61**	**29**	**0.069**	*<0.025*	**0.079**	**0.46**	**2.5**	**0.22**	**0.52**	**0.004**	**0.002**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW204_241206*	MW204	Shallow	06 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_241206*	MW204	Shallow	06 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	**1.8**	**1.7**	**5.4**	**0.045**	**1.3**	**0.014**	*<0.007*	**0.066**	**0.23**	**1.4**	**0.17**	**0.14**	**0.001**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW019_250501*	MW019	Shallow	01 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_250501*	MW019	Shallow	01 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_250501	MW019	Shallow	01 May 2025	SA04	**2.48**	**3.1**	**24.5**	**1.27**	**48**	**0.15**	**0.05**	**0.9**	**1.35**	**6.97**	**0.81**	**1.32**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW018_250502*	MW018	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_250502*	MW018	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_250502	MW018	Shallow	02 May 2025	SA04	**15.8**	**17.4**	**143**	**13.3**	**356**	**0.88**	*<0.02*	**4.8**	**7.99**	**45.2**	**5.13**	**9.29**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW057_250502*	MW057	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_250502*	MW057	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_250502*	MW204	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_250502*	MW204	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_250502	MW057	Shallow	02 May 2025	SA04	**1.56**	**2.26**	**4.72**	**0.09**	**1.45**	**0.03**	**0.03**	**0.1**	**0.3**	**1.59**	**0.17**	**0.17**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW204_250502	MW204	Shallow	02 May 2025	SA04	**12.2**	**13.9**	**98.6**	**8.48**	**264**	**1.17**	**0.22**	**3.5**	**5.16**	**24.2**	**2.84**	**5.98**	**0.06**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW057_250616	MW057	Shallow	16 Jun 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_180405*	MW017	Shallow	05 Apr 2018	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017_180405	MW017	Shallow	05 Apr 2018	SA05	**7.5**	**12**	**49**	**0.82**	**6.1**	-	*<0.01*	**1.4**	**2.7**	**16**	**1.2**	**1.6**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW017_240625*	MW017	Shallow	25 Jun 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	**9.3**	**20**	**59**	**1.1**	**9.7**	*<0.015*	*<0.001*	**0.77**	**2.9**	**18**	**1.6**	**2.3**	*<0.015*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	**0.002**	**0.004**	**0.052**	**0.003**	**0.25**	**0.001**	*<0.001*	**0.005**	**0.002**	**0.006**	**0.001**	**0.006**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	**0.6**	**0.69**	**1.6**	**0.029**	**0.33**	*<0.001*	*<0.001*	**0.02**	**0.089**	**0.54**	**0.05**	**0.047**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW017_250502*	MW017	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_250502*	MW017	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_250502*	MW205	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_250502*	MW205	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_250502*	MW212	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_250502*	MW212	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_250502	MW017	Shallow	02 May 2025	SA05	**4.59**	**5.12**	**43.9**	**0.87**	**7.45**	*<0.02*	*<0.02*	**1**	**1.78**	**9.51**	**0.93**	**1.43**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW205_250502	MW205	Shallow	02 May 2025	SA05	**0.59**	**0.49**	**1.82**	**0.02**	**0.36**	*<0.02*	*<0.02*	*<0.1*	**0.11**	**0.63**	**0.05**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW212_250502	MW212	Shallow	02 May 2025	SA05	**0.03**	*<0.02*	**0.04**	*<0.02*	**0.02**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW017_250616	MW017	Shallow	16 Jun 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_180404*	MW015	Shallow	04 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_180405*	MW007	Shallow	05 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_180405*	MW016	Shallow	05 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007_180405	MW007	Shallow	05 Apr 2018	SA06	**0.03**	**0.04**	**0.22**	*<0.01*	**0.08**	-	*<0.01*	*<0.05*	*<0.01*	**0.03**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
QC229_180405	MW016	Shallow	05 Apr 2018	SA06	**0.26**	**0.34**	**3.94**	**0.2**	**13.9**	-	*<0.05*	*<0.2*	**0.19**	**1.23**	*<0.05*	**0.34**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	-
MW016_180405	MW016	Shallow	05 Apr 2018	SA06	**0.48**	**1.3**	**5.8**	**0.35**	**26**	-	*<0.01*	**0.17**	**0.32**	**2**	**0.21**	**0.37**	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
QC129_180405	MW016	Shallow	05 Apr 2018	SA06	**0.78**	**2.4**	**9**	**0.58**	**47**	-	*<0.01*	**0.28**	**0.52**	**3.2**	**0.35**	**0.6**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW008_180406*	MW008	Shallow	06 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_180406*	MW062	Shallow	06 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008_180406	MW008	Shallow	06 Apr 2018	SA06	**0.47**	**0.47**	**2.8**	**0.12**	**3.2**	-	*<0.01*	**0.1**	**0.19**	**0.82**	**0.07**	**0.12**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW015_180406	MW015	Shallow	06 Apr 2018	SA06	**1.9**	**3.9**	**21**	**1.8**	**86**	-	**0.06**	**0.72**	**1.6**	**5.6**	**0.7**	**1.5**	**0.04**	**0.02**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
MW062_180406	MW062	Shallow	06 Apr 2018	SA06	**1.2**	**1.6**	**9.7**	**0.84**	**30**	-	**0.01**	**0.31**	**0.52**	**2.6**	**0.23**	**0.53**	**0.01**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW061_180412*	MW061	Shallow	12 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061_180412	MW061	Shallow	12 Apr 2018	SA06	**5.3**	**5.1**	**28**	**2.1**	**67**	-	*<0.2*	**3.4**	**4.3**	**19**	**2.6**	**4.5**	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	*<0.2*	-
0932_MW104_181219*	MW104	Shallow	19 Dec 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104_181219	MW104	Shallow	19 Dec 2018	SA06	**0.4**	**0.63**	**4.5**	**0.33**	**13**	-	*<0.01*	**0.09**	**0.16**	**0.88**	**0.14**	**0.29**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW015_191219*	MW015	Shallow	19 Dec 2019	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	**0.22**	**0.25**	**2.7**	**0.12**	**10**	**0.032**	*<0.0125*	**0.1**	**0.18**	**0.64**	**0.095**	**0.24**	**0.007**	**0.003**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	**0.31**	**0.37**	**5.1**	**0.2**	**19**	**0.071**	*<0.025*	**0.073**	**0.22**	**1.4**	**0.19**	**0.32**	**0.009**	**0.002**	*<0.025*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	**0.21**	**0.21**	**2.3**	**0.17**	**14**	**0.051**	*<0.0125*	**0.028**	**0.1**	**0.37**	**0.055**	**0.14**	**0.005**	**0.003**	*<0.02*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	**0.13**	**0.25**	**2.1**	**0.15**	**3.9**	**0.013**	**0.002**	**0.028**	**0.16**	**0.74**	**0.091**	**0.15**	**0.004**	**0.006**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	**0.074**	**0.1**	**0.72**	**0.057**	**1.8**	**0.006**	*<0.001*	**0.01**	**0.045**	**0.21**	**0.023**	**0.049**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	**0.013**	**0.013**	**0.079**	**0.003**	**0.16**	*<0.001*	*<0.001*	*<0.005*	**0.009**	**0.021**	**0.003**	**0.004**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	**0.46**	**0.41**	**3.7**	**0.11**	**0.15**	*<0.001*	*<0.001*	**0.036**	**0.08**	**0.39**	**0.049**	**0.085**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	**0.37**	**0.44**	**3.4**	**0.15**	**2.5**	**0.002**	*<0.001*	**0.05**	**0.15**	**0.89**	**0.056**	**0.11**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW221_250501*	MW221	Shallow	01 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW221_250501*	MW221	Shallow	01 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW221_250501	MW221	Shallow	01 May 2025	SA06	**0.2**	**0.2**	**1.22**	**0.05**	**0.65**	*<0.02*	*<0.02*	*<0.1*	**0.05**	**0.25**	**0.02**	**0.04**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW007_250502*	MW007	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_250502*	MW007	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502*	MW015	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502*	MW015	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_250502	MW007	Shallow	02 May 2025	SA06	**0.5**	**0.67**	**3.56**	**0.1**	**0.2**	*<0.02*	*<0.02*	*<0.1*	**0.09**	**0.42**	**0.02**	**0.03**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW016_250502*	MW016	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_250502*	MW016	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502*	MW062	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502*	MW062	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502	MW015	Shallow	02 May 2025	SA06	**0.25**	**0.31**	**3.35**	**0.2**	**9.03**	**0.08**	**0.02**	*<0.1*	**0.14**	**0.55**	**0.06**	**0.19**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW206_250502*	MW206	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW206_250502*	MW206	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfuolohexadecanoic acid (PFHxDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV																632							
ANZG (March 2026) Freshwater 95% spp. DGV									0.9														
PFAS NEMP 2025 Interim marine 99%																220							
ANZG (March 2026) Freshwater 99% spp. DGV									0.02														
ANZG (March 2026) Biota Screening Value									0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW016_250502	MW016	Shallow	02 May 2025	SA06	**0.48**	**0.62**	**6.14**	**0.37**	**29.6**	**0.27**	**0.04**	**0.2**	**0.34**	**1.9**	**0.25**	**0.46**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW211_250502*	MW211	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW211_250502*	MW211	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW219_250502*	MW219	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW219_250502*	MW219	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502	MW062	Shallow	02 May 2025	SA06	**0.2**	**0.26**	**2.09**	**0.14**	**7.14**	**0.08**	**0.02**	*<0.1*	**0.08**	**0.36**	**0.06**	**0.13**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502	MW104	Shallow	02 May 2025	SA06	**0.23**	**0.25**	**2.31**	**0.15**	**6.71**	**0.02**	*<0.02*	**0.1**	**0.15**	**0.93**	**0.1**	**0.17**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW206_250502	MW206	Shallow	02 May 2025	SA06	**0.19**	**0.19**	**1.45**	**0.08**	**2.45**	*<0.02*	*<0.02*	*<0.1*	**0.08**	**0.37**	**0.04**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC102_250502	MW206	Shallow	02 May 2025	SA06	**0.19**	**0.22**	**1.51**	**0.08**	**2.46**	*<0.02*	*<0.02*	*<0.1*	**0.08**	**0.36**	**0.04**	**0.08**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC202_250502	MW206	Shallow	02 May 2025	SA06	**0.21**	**0.22**	**1.9**	**0.08**	**3**	*<0.01*	*<0.01*	**0.05**	**0.08**	**0.42**	**0.05**	**0.09**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW211_250502	MW211	Shallow	02 May 2025	SA06	*<0.02*	*<0.02*	**0.03**	*<0.02*	**0.04**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW219_250502	MW219	Shallow	02 May 2025	SA06	**0.24**	**0.32**	**3.63**	**0.22**	**7.31**	*<0.02*	*<0.02*	**0.1**	**0.18**	**1.04**	**0.14**	**0.26**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_QC103_250502	MW219	Shallow	02 May 2025	SA06	**0.24**	-	**3.49**	-	**7.55**	-	-	**0.1**	**0.18**	**1.03**	**0.13**	**0.26**	-	-	-	-	-	-	-
0932_QC203_250502	MW219	Shallow	02 May 2025	SA06	**0.3**	**0.39**	**4.8**	**0.21**	**7.7**	*<0.01*	*<0.01*	**0.13**	**0.16**	**1.3**	**0.17**	**0.31**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW008_250505*	MW008	Shallow	05 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_250505*	MW008	Shallow	05 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_250505	MW008	Shallow	05 May 2025	SA06	**0.4**	**0.44**	**2.89**	**0.12**	**2.24**	*<0.02*	*<0.02*	*<0.1*	**0.15**	**0.73**	**0.06**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW054_180405*	MW054	Shallow	05 Apr 2018	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054_180405	MW054	Shallow	05 Apr 2018	SA07	**1**	**1.3**	**4.7**	**0.25**	**3.7**	-	*<0.01*	**0.07**	**0.11**	**0.56**	**0.07**	**0.11**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW064_180412*	MW064	Shallow	12 Apr 2018	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064_180412	MW064	Shallow	12 Apr 2018	SA07	**0.18**	**0.13**	**1.2**	**0.05**	**1.1**	-	*<0.01*	*<0.05*	**0.05**	**0.25**	**0.03**	**0.04**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW064_220608*	MW064	Shallow	08 Jun 2022	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW064_230606*	MW064	Shallow	06 Jun 2023	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	**0.14**	**0.21**	**1**	**0.058**	**0.97**	**0.002**	*<0.001*	**0.013**	**0.058**	**0.23**	**0.033**	**0.066**	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-
0932_MW207_250501*	MW207	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_250501*	MW207	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW220_250501*	MW220	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW220_250501*	MW220	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	**0.29**	**0.3**	**1.71**	**0.08**	**1.72**	*<0.02*	*<0.02*	*<0.1*	**0.08**	**0.36**	**0.05**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	**0.29**	**0.3**	**1.71**	**0.08**	**1.72**	*<0.02*	*<0.02*	*<0.1*	**0.08**	**0.36**	**0.05**	**0.09**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW220_250501	MW220	Shallow	01 May 2025	SA07	**0.12**	**0.1**	**0.5**	*<0.02*	**0.22**	*<0.02*	*<0.02*	*<0.1*	*<0.02*	**0.04**	*<0.02*	**0.01**	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*
0932_MW102_181219*	MW102	Intermediate	19 Dec 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102_181219	MW102	Intermediate	19 Dec 2018	SA08	*<0.01*	*<0.01*	**0.02**	*<0.01*	**0.02**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
QC120_181219	MW102	Intermediate	19 Dec 2018	SA08	*<0.01*	*<0.01*	**0.02**	*<0.01*	**0.02**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
QC221_181219	MW102	Intermediate	19 Dec 2018	SA08	*<0.02*	*<0.02*	**0.03**	*<0.02*	**0.02**	-	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	-
0932_MW033_160517*	MW033	Shallow	17 May 2016	SA08	**0.14**	-	**0.12**	-	***<0.01***	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW058_160517*	MW058	Shallow	17 May 2016	SA08	*<0.01*	-	**0.01**	-	**0.01**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW032_160517*	MW032	Shallow	17 May 2016	SA08	**0.06**	-	**0.92**	-	**0.12**	-	*<0.01*	*<0.05*	**0.02**	**0.09**	**0.01**	**0.05**	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW031_160518*	MW031	Shallow	18 May 2016	SA08	*<0.01*	-	**0.06**	-	**0.14**	-	*<0.01*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-
0932_MW031_180411*	MW031	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_180411*	MW032	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																
0932_MW033_180411*	MW033	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW031_180411	MW031	Shallow	11 Apr 2018	SA08	**0.02**	**0.03**	**0.29**	<0.01	**0.35**	-	<0.01	<0.05	**0.01**	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW032_180411	MW032	Shallow	11 Apr 2018	SA08	**0.06**	**0.05**	**0.45**	**0.02**	**0.42**	-	<0.01	<0.05	**0.02**	**0.09**	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW058_180411*	MW058	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW033_180411	MW033	Shallow	11 Apr 2018	SA08	**0.18**	**0.08**	**0.52**	<0.01	**0.05**	-	<0.01	<0.05	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
MW058_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.03**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC131_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.01	**0.02**	<0.01	**0.03**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
QC231_180411	MW058	Shallow	11 Apr 2018	SA08	<0.02	<0.02	<0.02	<0.02	**0.03**	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW103_181219*	MW103	Shallow	19 Dec 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103_181219	MW103	Shallow	19 Dec 2018	SA08	**0.27**	**0.37**	**2.7**	**0.05**	**1.6**	-	<0.01	**0.06**	**0.11**	**0.99**	**0.05**	**0.09**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW033_200518*	MW033	Shallow	18 May 2020	SA08	**0.34**	**0.26**	**1.11**	<0.02	**0.07**	-	<0.02	<0.1	<0.02	**0.04**	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-
0932_MW031_210707*	MW031	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_210707*	MW032	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_210707*	MW033	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_210707*	MW058	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_220607*	MW031	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_220607*	MW032	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_220607*	MW033	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_220607*	MW058	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_230606	MW033	Shallow	06 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_230607	MW031	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_230607	MW032	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_230607	MW058	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_230614*	MW031	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_230614*	MW032	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_230614*	MW033	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_230614*	MW058	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	**0.15**	**0.18**	**1.2**	**0.019**	**1.8**	**0.003**	<0.001	**0.018**	**0.03**	**0.2**	**0.015**	**0.027**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	**0.062**	**0.061**	**0.42**	**0.05**	**1.5**	**0.005**	**0.002**	**0.023**	**0.026**	**0.074**	**0.023**	**0.13**	**0.012**	**0.003**	<0.001	<0.001	<0.001	<0.001	-
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	**0.18**	**0.08**	**0.44**	**0.006**	**0.019**	<0.001	<0.001	**0.024**	**0.009**	**0.012**	<0.002	**0.004**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW031_250505*	MW031	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_250505*	MW031	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505*	MW032	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505*	MW032	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_250505	MW031	Shallow	05 May 2025	SA08	**0.07**	**0.08**	**0.77**	<0.02	**2.07**	<0.02	<0.02	<0.1	<0.02	**0.07**	<0.02	**0.01**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW033_250505*	MW033	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_250505*	MW033	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505	MW032	Shallow	05 May 2025	SA08	**0.06**	**0.03**	**0.29**	**0.02**	**1.38**	<0.02	<0.02	<0.1	<0.02	**0.05**	<0.02	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	**0.177**	**0.059**	**0.541**	**0.005**	**0.029**	-	<0.002	**0.05**	**0.015**	**0.015**	<0.002	**0.002**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	**0.18**	**0.07**	**0.51**	<0.02	**0.03**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW058_250505	MW058	Shallow	05 May 2025	SA08	<0.02	<0.02	**0.01**	<0.02	**0.02**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05

Table 3 – Groundwater Analytical Results

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluolohexadecanoic acid (PFHxDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.001	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Interim marine 95% spp. DGV												632							
ANZG (March 2026) Freshwater 95% spp. DGV					0.9														
PFAS NEMP 2025 Interim marine 99%												220							
ANZG (March 2026) Freshwater 99% spp. DGV					0.02														
ANZG (March 2026) Biota Screening Value					0.0005														
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**																			
0932_MW218_250505*	MW218	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW218_250505*	MW218	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW218_250505	MW218	Shallow	05 May 2025	SA08	**0.02**	<0.02	**0.02**	<0.02	**0.01**	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW035_180412*	MW035	Shallow	12 Apr 2018	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW035_180412	MW035	Shallow	12 Apr 2018	SA09	<0.01	<0.01	**0.06**	<0.01	**0.1**	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW035_S_210706	MW035	Shallow	06 Jul 2021	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_210707*	MW035	Shallow	07 Jul 2021	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_220616*	MW035	Shallow	16 Jun 2022	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_230614*	MW035	Shallow	14 Jun 2023	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	**0.007**	**0.009**	**0.051**	**0.002**	**0.07**	<0.001	<0.001	<0.005	**0.001**	**0.007**	<0.001	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512*	MW035	Shallow	12 May 2025	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512*	MW035	Shallow	12 May 2025	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512	MW035	Shallow	12 May 2025	SA09	<0.02	**0.03**	**0.19**	<0.02	**0.38**	<0.02	<0.02	<0.1	<0.02	**0.04**	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05
0932_MW028_160518*	MW028	Shallow	18 May 2016	SA10	**0.19**	-	**1**	-	**0.13**	-	<0.01	<0.05	**0.07**	**0.26**	**0.04**	**0.05**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932-QC101	MW028	Shallow	18 May 2016	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW028_180406*	MW028	Shallow	06 Apr 2018	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW028_180406	MW028	Shallow	06 Apr 2018	SA10	**0.54**	**0.7**	**5.9**	**0.37**	**14**	-	<0.01	**0.14**	**0.23**	**0.89**	**0.13**	**0.3**	**0.14**	<0.01	<0.01	<0.01	<0.01	<0.01	-
0932_MW029_180406*	MW029	Shallow	06 Apr 2018	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW029_180406	MW029	Shallow	06 Apr 2018	SA10	**0.08**	**0.09**	**0.86**	**0.04**	**2.4**	-	<0.01	<0.05	**0.06**	**0.13**	**0.03**	**0.04**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	-

Table 3 – Groundwater Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														

Field ID	Location Code	Aquifer	Date	Monitoring Zone												
0932_MW167_200922*	MW167	Shallow	22 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**44.3**	**48.9**	**51.6**
0932_MW150_200922*	MW150	Shallow	22 Sep 2020	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW150_S_200929	MW150	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**84.5**	**116**	**126**
0932_MW152_200929*	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**370**	**443.8**	**470.4**
0932_MW152_S_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**174**	**240**	**262**
0932_QC102_200929	MW152	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**187**	**250**	**272**
0932_MW166_200929*	MW166	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**92.6**	**120**	**129**
0932_MW167_200929*	MW167	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**48**	**53.2**	**56.5**
0932_MW168_200929*	MW168	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.21**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**171**	**234**	**254**
0932_MW169_200929*	MW169	Shallow	29 Sep 2020	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**78**	**92.6**	**98.7**
0932_MW150_210526*	MW150	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**108**	**132**	**140**
0932_QC106_210526	MW152	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**291**	**356**	**376**
0932_MW152_210526*	MW152	Shallow	26 May 2021	Off-base (East)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**290**	**355.8**	**376.04**
0932_MW152_210526	MW152	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**311**	**376**	**401**
0932_MW166_210526*	MW166	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**50.7**	**64.8**	**69.5**
0932_MW167_210526*	MW167	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**55.5**	**63.7**	**67**
0932_MW168_210526*	MW168	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.23**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**220**	**271**	**292**
0932_MW169_210526*	MW169	Shallow	26 May 2021	Off-base (East)	<0.01	<0.05	<0.01	<0.01	**0.05**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**54**	**65.15**	**70.48**
0932_MW169_210526	MW169	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**51.3**	**62**	**65.6**
0932_QC102_210526	MW169	Shallow	26 May 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**55.4**	**65.8**	**69.2**
0932_MW150_210729*	MW150	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**172**	**174**	**175**
0932_MW152_210729*	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.01	**0.08**	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**270**	**326.68**	**350.91**
0932_QC102_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**292**	**352**	**368**
0932_MW152_210729	MW152	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.03	<0.09	<0.09	<0.03	<0.09	**304**	**365**	**383**
0932_MW166_210729*	MW166	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.2**	**44.7**	**47.1**
0932_MW167_210729*	MW167	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**50.4**	**58.4**	**61.3**
0932_MW168_210729*	MW168	Shallow	29 Jul 2021	Off-base (East)	<0.05	**0.1**	<0.05	<0.05	**0.21**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**222**	**267**	**280**
0932_MW169_210729*	MW169	Shallow	29 Jul 2021	Off-base (East)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**36.3**	**41.8**	**43.8**
0932_MW166_230403*	MW166	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_230403*	MW167	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW168_230403*	MW168	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW169_230403*	MW169	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW152_230403*	MW152	Shallow	03 Apr 2023	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC105_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**136**	**180**	**194**
0932_MW152_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**135**	**177**	**191**
0932_QC205_230404	MW152	Shallow	04 Apr 2023	Off-base (East)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.2	<0.05	<0.05	<0.2	<0.05	<0.05	**169**	**217.7**	**229.83**
0932_MW166_230404	MW166	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.1**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**50**	**61.2**	**65.1**
0932_MW167_230404	MW167	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.6**	**49.6**	**52.4**
0932_MW168_230404	MW168	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.39**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**44.4**	**52.3**	**55.9**
0932_MW169_230404	MW169	Shallow	04 Apr 2023	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.1**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**23.1**	**25.7**	**27.2**
0932_MW152_240620*	MW152	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_240620*	MW167	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC102_240620	MW167	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC202_240621	MW169	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW169_240620*	MW169	Shallow	20 Jun 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_241210*	MW166	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.034**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**34**	**42.88**	**46.421**
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_241210*	MW167	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.09**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**50**	**58.8**	**62.822**
0932_MW168_241210*	MW168	Shallow	10 Dec 2024	Off-base (East)	<0.001	<0.005	<0.001	<0.001	**0.26**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**47.5**	**50.348**	**53.688**
0932_MW166_250506*	MW166	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW166_250506*	MW166	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250506*	MW167	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250506*	MW167	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC201_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.02	<0.05	<0.01	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**13.1**	**17.29**	**18.72**
0932_MW168_250506*	MW168	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW168_250506*	MW168	Shallow	06 May 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.9**	**21.2**	**23.4**
0932_MW166_250506	MW166	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**20.4**	**27.1**	**30.2**
0932_MW167_250506	MW167	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.11**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**40.2**	**48.7**	**53.2**
0932_MW168_250506	MW168	Shallow	06 May 2025	Off-base (East)	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.2**	**18.3**	**18.5**
0932_MW152_250623	MW152	Shallow	23 Jun 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW167_250623	MW167	Shallow	23 Jun 2025	Off-base (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW111_181219*	MW111	Unknown	19 Dec 2018	On-base Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111_181219	MW111	Unknown	19 Dec 2018	On-base Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW009_180405*	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009_180405	MW009	Shallow	05 Apr 2018	On-base Other (Central west)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.25**	**0.28**
0932_MW026_180406*	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW026_180406	MW026	Shallow	06 Apr 2018	On-base Other (Central west)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.12**	**0.14**	**0.14**
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_241206*	MW026	Shallow	06 Dec 2024	On-base Other (Central west)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.022**	**0.036**	**0.043**
0932_MW026_250502*	MW026	Shallow	02 May 2025	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_250502*	MW026	Shallow	02 May 2025	On-base Other (Central west)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW026_250502	MW026	Shallow	02 May 2025	On-base Other (Central west)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
MW056_180413	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.36**	**0.39**	**0.41**
0932_MW056_180413*	MW056	Shallow	13 Apr 2018	On-base Other (East of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110_181218	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**15.25**	**32.53**	**36.4**
0932_MW110_181218*	MW110	Shallow	18 Dec 2018	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_200930*	MW110	Shallow	30 Sep 2020	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**382**	**511**	**542**
0932_MW110_210524*	MW110	Shallow	24 May 2021	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**424**	**559**	**599**
0932_MW110_210730*	MW110	Shallow	30 Jul 2021	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**321**	**410**	**431**
0932_MW110_230327*	MW110	Shallow	27 Mar 2023	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_230330	MW110	Shallow	30 Mar 2023	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**145**	**184**	**198**
0932_MW110_240627*	MW110	Shallow	27 Jun 2024	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**13.16**	**22.95**	**26.53**
0932_MW110_241210*	MW110	Shallow	10 Dec 2024	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250512	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.5**	**21.4**	**24.2**

Table 3 – Groundwater Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV														
ANZG (March 2026) Freshwater 95% spp. DGV														
PFAS NEMP 2025 Interim marine 99%														
ANZG (March 2026) Freshwater 99% spp. DGV														
ANZG (March 2026) Biota Screening Value														
0932_MW110_250512*	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250512*	MW110	Shallow	12 May 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW110_250618	MW110	Shallow	18 Jun 2025	On-base Other (Eastern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_D_200929	MW043	Deep	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.7**	**21.6**	**24.4**
0932_MW043_210525*	MW043	Deep	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_210730*	MW043	Deep	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_230328*	MW043	Deep	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_230330	MW043	Deep	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_240626*	MW043	Deep	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW043_250516	MW043	Deep	16 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW043_250701	MW043	Deep	01 Jul 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_I_200929	MW044	Intermediate	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.8**	**22.3**	**25**
0932_MW044_210525*	MW044	Intermediate	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15**	**22.1**	**25.2**
0932_MW044_210730*	MW044	Intermediate	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.2**	**26.3**	**28.5**
0932_MW044_230328*	MW044	Intermediate	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_230330	MW044	Intermediate	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.6**	**19.6**	**22**
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_241210*	MW044	Intermediate	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**9.54**	**13.455**	**16.565**
0932_MW044_250512*	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW044_250512*	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.01**	**11.9**	**13.7**
0932_MW044_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.51**	**13.4**	**15.7**
0932_QC201_250512	MW044	Intermediate	12 May 2025	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**10.23**	**14.78**	**17.53**
0932_MW046_160517*	MW046	Shallow	17 May 2016	On-base Other (North of SA01)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW038_180413*	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_180413*	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW038_180413	MW038	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**8.86**	**15.13**	**16.41**
MW039_180413	MW039	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.42**	**11.64**	**12.88**
0932_MW040_180413*	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_180413*	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW040_180413	MW040	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**51**	**65.01**	**69.64**
0932_MW042_180413*	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW041_180413	MW041	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.59**	**2.63**	**2.72**
MW042_180413	MW042	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.38**	**0.64**	**0.7**
0932_MW045_180413*	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW046_180413*	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045_180413	MW045	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**40**	**45.16**	**46.65**
MW046_180413	MW046	Shallow	13 Apr 2018	On-base Other (North of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6.6**	**9.95**	**10.84**
0932_MW039_S_200921	MW039	Shallow	21 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.4**	**33.2**	**36.9**
0932_MW039_S_200929	MW039	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12**	**21.3**	**23.9**
0932_MW040_S_200929	MW040	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**70.2**	**93.2**	**101**
0932_MW041_200929*	MW041	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**38.5**	**62.7**	**69.1**
0932_MW042_200929*	MW042	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.68**	**12.4**	**14.1**
0932_MW045_200929*	MW045	Shallow	29 Sep 2020	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.5**	**36.3**	**37.6**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW039_210525*	MW039	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.6**	**23.6**	**26.7**
0932_MW040_210525*	MW040	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**41**	**53.5**	**57.7**
0932_MW041_210525*	MW041	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.69**	**1.62**	**1.72**
0932_MW042_210525*	MW042	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.11**	**7.29**	**8.39**
0932_MW045_210525*	MW045	Shallow	25 May 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.3**	**38.8**	**41.6**
0932_MW039_210730*	MW039	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**13.6**	**24.3**	**25.8**
0932_MW040_210730*	MW040	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**80**	**101**	**106**
0932_MW041_210730*	MW041	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.38**	**1.15**	**1.21**
0932_MW042_210730*	MW042	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.84**	**11.8**	**12.9**
0932_MW045_210730*	MW045	Shallow	30 Jul 2021	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**36.4**	**39.6**	**40.8**
0932_MW039_230328*	MW039	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW040_230328*	MW040	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_230328*	MW041	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_230328*	MW042	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_230328*	MW045	Shallow	28 Mar 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_230330	MW039	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.7**	**15.8**	**17.7**
0932_MW040_230330	MW040	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**48.4**	**59.9**	**64.5**
0932_MW041_230330	MW041	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.6**	**3.82**	**3.97**
0932_MW042_230330	MW042	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**0.83**	**0.96**
0932_MW045_230330	MW045	Shallow	30 Mar 2023	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.4**	**48.2**	**50.9**
0932_MW046_230614*	MW046	Shallow	14 Jun 2023	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_240626*	MW041	Shallow	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_240626*	MW042	Shallow	26 Jun 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_241209*	MW042	Shallow	09 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_241210*	MW038	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**7.35**	**16.21**	**19.479**
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_241210*	MW039	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**36.9**	**74.6**	**98.29**
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_241210*	MW041	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.65**	**1.736**	**2.034**
0932_QC201_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.0012**	-	**0.0012**
0932_QC101_241210	MW042	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.133**	**0.221**	**0.265**
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_241210*	MW045	Shallow	10 Dec 2024	On-base Other (North of SA01)	<0.001	<0.005	<0.001	<0.001	**0.015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**48**	**53.06**	**55.527**
0932_MW038_250512*	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_250512*	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW038_250512	MW038	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.9**	**9.56**	**10.9**
0932_MW039_250512*	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_250512*	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW039_250512	MW039	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28.2**	**53.2**	**59.8**
0932_MW041_250512*	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_250512*	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW041_250512	MW041	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**1.43**	**1.65**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW042_250512*	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_250512*	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW042_250512	MW042	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.45**	**2.22**	**2.56**
0932_MW045_250512*	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_250512*	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW045_250512	MW045	Shallow	12 May 2025	On-base Other (North of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**32**	**36.4**	**38.2**
0932_MW042_250701	MW042	Shallow	01 Jul 2025	On-base Other (North of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW006_180406*	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006_180406	MW006	Shallow	06 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_MW001_180409*	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_180409*	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW001_180409	MW001	Shallow	09 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.09**	**0.14**	**0.14**
MW002_180409	MW002	Shallow	09 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.67**	**1.89**	**1.93**
0932_MW005_180411*	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005_180411	MW005	Shallow	11 Apr 2018	On-base Other (North of SA03)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**9.5**	**14.11**	**15.48**
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_241206*	MW002	Shallow	06 Dec 2024	On-base Other (North of SA03)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.153**	**0.214**	**0.232**
0932_MW005_241206*	MW005	Shallow	06 Dec 2024	On-base Other (North of SA03)	<0.001	<0.005	<0.001	<0.0125	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**17.2**	**19.967**	**21.899**
0932_MW002_250505*	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_250505*	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW002_250505	MW002	Shallow	05 May 2025	On-base Other (North of SA03)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.12**	**0.12**
0932_MW005_250506*	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_250506*	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW005_250506	MW005	Shallow	06 May 2025	On-base Other (North of SA03)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.04**	**8.18**	**8.81**
0932_MW027_160518*	MW027	Shallow	18 May 2016	On-base Other (North of SA05/SA06)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW027_180518*	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW027_180518	MW027	Shallow	18 May 2018	On-base Other (North of SA05/SA06)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.01**	<0.05	<0.1
0932_MW027_210707*	MW027	Shallow	07 Jul 2021	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_220606*	MW027	Shallow	06 Jun 2022	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_230606*	MW027	Shallow	06 Jun 2023	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_240621*	MW027	Shallow	21 Jun 2024	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_241206*	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.061**	**0.082**	**0.091**
0932_QC102_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.064**	**0.084**	**0.092**
0932_QC202_241206	MW027	Shallow	06 Dec 2024	On-base Other (North of SA05/SA06)	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.074**	-	**0.1**
0932_MW027_250502*	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_250502*	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW027_250502	MW027	Shallow	02 May 2025	On-base Other (North of SA05/SA06)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW027_250616	MW027	Shallow	16 Jun 2025	On-base Other (North of SA05/SA06)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW100_200518*	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.12**	**0.13**	**0.14**
QC101_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.18**	**0.18**	**0.21**
MW100_200518	MW100	Shallow	18 May 2020	On-base Other (North of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.21**	**0.23**	**0.26**
0932_MW108_181218*	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
MW108_181218	MW108	Shallow	18 Dec 2018	On-base Other (Northeast of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.09**	<0.1
0932_MW030_180518*	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW063_180518*	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030_180518	MW030	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW063_180518	MW063	Shallow	18 May 2018	On-base Other (Northern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
0932_MW101_200518*	MW101	Shallow	18 May 2020	On-base Other (Northwest of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW107_181218	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**44**	**56.9**	**59.92**
0932_MW107_181218*	MW107	Shallow	18 Dec 2018	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	<0.001	<0.02	<0.001	<0.001	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**34**	**48.08**	**52.941**
0932_MW107_241209*	MW107	Shallow	09 Dec 2024	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_250506	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.6**	**52.9**	**59.8**
0932_MW107_250506*	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW107_250506*	MW107	Shallow	06 May 2025	On-base Other (South of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW049_160517*	MW049	Shallow	17 May 2016	On-base Other (South of SA07)	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW049_180115*	MW049	Shallow	15 Jan 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW049_180412*	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW049_180412	MW049	Shallow	12 Apr 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.25**	**0.28**	**0.3**
0932_MW109_181218*	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC217_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.39**	**0.39**	**0.39**
MW109_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.43**	**0.44**	**0.45**
QC116_181218	MW109	Shallow	18 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.45**	**0.46**	**0.47**
0932_MW106_181219*	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106_181219	MW106	Shallow	19 Dec 2018	On-base Other (South of SA07)	<0.01	<0.05	<0.01	<0.01	**0.78**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**165**	**465.5**	**487.48**
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_241210*	MW106	Shallow	10 Dec 2024	On-base Other (South of SA07)	<0.15	<0.15	<0.15	<0.001	**2.7**	<0.15	<0.15	<0.005	<0.005	<0.005	<0.005	**1,537**	**2,894**	**3,090.67**
0932_MW106_250506*	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_250506*	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW106_250506	MW106	Shallow	06 May 2025	On-base Other (South of SA07)	<0.05	<0.05	<0.05	<0.05	**2.13**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**1,120**	**2,300**	**2,510**
MW112_181219	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.62**	**0.87**	**0.93**
0932_MW112_181219*	MW112	Shallow	19 Dec 2018	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.108**	**0.141**	**0.153**
0932_MW112_241209*	MW112	Shallow	09 Dec 2024	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_250505	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	**0.08**	**0.08**
0932_MW112_250505*	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW112_250505*	MW112	Shallow	05 May 2025	On-base Other (South of SA08)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_180413*	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW025_180413	MW025	Shallow	13 Apr 2018	On-base Other (South of SA09)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**12.6**	**16.64**	**17.69**
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_241210*	MW025	Shallow	10 Dec 2024	On-base Other (South of SA09)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.118**	**0.435**	**0.506**
0932_MW025_250512*	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_250512*	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW025_250512	MW025	Shallow	12 May 2025	On-base Other (South of SA09)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.41**	**0.47**
0932_MW051_180410*	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051_180410	MW051	Shallow	10 Apr 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4**	**4.74**	**4.93**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
MW052_180412	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.68**	**0.8**	**0.85**
0932_MW052_180412*	MW052	Shallow	12 Apr 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_181218*	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW105_181218	MW105	Shallow	18 Dec 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**7.1**	**10.08**	**10.74**
0932_MW113_181218*	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113_181218	MW113	Shallow	18 Dec 2018	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.26**	**0.28**
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_241210*	MW105	Shallow	10 Dec 2024	On-base Other (Southern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.3**	**22.15**	**25.11**
0932_MW113_241210*	MW113	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW113_241210*	MW113	Shallow	10 Dec 2024	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505*	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505*	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW105_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.6**	**21.1**	**24.3**
0932_QC201_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.5**	**22.43**	**25.252**
0932_MW216_250505*	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW216_250505*	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250505	MW105	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**16**	**22.5**	**25.8**
0932_MW216_250505	MW216	Shallow	05 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.34**	**1.56**	**1.66**
0932_MW215_250508*	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW215_250508*	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW215_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.27**	**0.3**	**0.32**
0932_QC101_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	**0.33**	**0.36**
0932_QC201_250508	MW215	Shallow	08 May 2025	On-base Other (Southern boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.37**	**0.42**	**0.47**
0932_MW037_180412*	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_180412*	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW037_180412	MW037	Shallow	12 Apr 2018	On-base Other (West of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**32.3**	**35.75**	**36.88**
MW047_180412	MW047	Shallow	12 Apr 2018	On-base Other (West of SA01)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**16.3**	**21.72**	**23.34**
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_241209*	MW047	Shallow	09 Dec 2024	On-base Other (West of SA01)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**7.5**	**8.669**	**9.416**
0932_MW047_250506*	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_250506*	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW047_250506	MW047	Shallow	06 May 2025	On-base Other (West of SA01)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.53**	**7.68**	**8.37**
0932_MW020_180410*	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020_180410	MW020	Shallow	10 Apr 2018	On-base Other (West of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.25**	**1.33**	**1.35**
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW020_241210*	MW020	Shallow	10 Dec 2024	On-base Other (West of SA02)	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.93**	**2.146**	**2.217**
0932_MW020_250502*	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW020_250502*	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC101_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.95**	**0.99**	**0.99**
0932_MW020_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.96**	**1.02**	**1.02**
0932_QC201_250502	MW020	Shallow	02 May 2025	On-base Other (West of SA02)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.35**	**1.43**	**1.44**
0932_MW013_180406*	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013_180406	MW013	Shallow	06 Apr 2018	On-base Other (Western boundary)	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW013_241210*	MW013	Shallow	10 Dec 2024	On-base Other (Western boundary)	<0.001	**0.034**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.035**	**0.093**	**0.097**
0932_MW013_250505*	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW013_250505*	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW013_250505	MW013	Shallow	05 May 2025	On-base Other (Western boundary)	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.015**	**0.017**	**0.017**
0932_MW189_200930*	MW189	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW190_200930*	MW190	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW191_200930*	MW191	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1**	**1.83**	**2.03**
0932_MW194_D_200930	MW194	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC105_200930	MW194	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW194_200930*	MW194	Deep	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.1
0932_MW195_200930*	MW195	Deep	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_201001*	MW193	Deep	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_201001*	MW196	Deep	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW191_201110*	MW191	Deep	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_210524*	MW189	Deep	24 May 2021	SA01	<0.05	**0.09**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.93**	**2.39**	**2.46**
0932_MW190_210524*	MW190	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW191_210524*	MW191	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.98**	**1.89**	**2**
0932_MW195_210524*	MW195	Deep	24 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.01**	<0.05	<0.1
0932_MW195_210524	MW195	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC101_210524	MW195	Deep	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_210525*	MW193	Deep	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_210525*	MW196	Deep	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW194_210526	MW194	Deep	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW194_210603*	MW194	Deep	03 Jun 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW195_210728*	MW195	Deep	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW191_210729*	MW191	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW194_210729*	MW194	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW196_210729*	MW196	Deep	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_210730*	MW189	Deep	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW190_210730*	MW190	Deep	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW193_210803*	MW193	Deep	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
0932_MW193_210803	MW193	Deep	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_230327*	MW189	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_230327*	MW190	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW191_230327*	MW191	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW193_230327*	MW193	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_230327*	MW194	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW196_230327*	MW196	Deep	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW195_230328*	MW195	Deep	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC100_230328	MW194	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.3**	**0.33**
0932_MW194_230328	MW194	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.32**	**0.56**	**0.63**
0932_QC200_230328	MW194	Deep	28 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**	**0.32**	**0.37**
0932_MW196_230328	MW196	Deep	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW193_230329	MW193	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC102_230329	MW193	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_QC202_230329	MW193	Deep	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_MW195_230329	MW195	Deep	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW189_230330	MW189	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW190_230330	MW190	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW191_230330	MW191	Deep	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.25**	**0.25**
0932_MW188_240616*	MW188	Deep	16 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW188_240617	MW188	Deep	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_240618*	MW189	Deep	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_240618*	MW194	Deep	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_240627*	MW190	Deep	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_250516	MW190	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_MW193_250516	MW193	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW194_250516	MW194	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.3**	**0.4**	**0.44**
0932_MW196_250516	MW196	Deep	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.01**	**0.01**	**0.01**
0932_MW195_250519	MW195	Deep	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
0932_MW188_250617	MW188	Deep	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW189_250618	MW189	Deep	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW194_250618	MW194	Deep	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW190_250624	MW190	Deep	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_200922*	MW180	Intermediate	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.14**	**0.18**	**0.18**
0932_MW172_200930*	MW172	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**10**	**13.9**	**15.3**
0932_MW174_200930*	MW174	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	**1.09**	**1.28**
0932_MW176_200930*	MW176	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**10.3**	**15.4**	**16.8**
0932_MW184_200930*	MW184	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**11.8**	**19.7**	**21.2**
0932_MW185_200930*	MW185	Intermediate	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**113**	**164**	**179**
0932_MW178_201001*	MW178	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**25.5**	**45.4**	**49.3**
0932_MW179_201001*	MW179	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.09**	**0.09**	**0.09**
0932_MW180_201001*	MW180	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.26**	**0.26**
0932_QC103_201001	MW181	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.3**	**0.34**
0932_MW181_I_201001	MW181	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.43**	**0.47**
0932_MW181_201001*	MW181	Intermediate	01 Oct 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.6**	**0.74**
0932_MW182_201001*	MW182	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.9**	**1.57**	**1.63**
0932_MW183_201001*	MW183	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.55**	**0.62**
0932_MW186_I_201001	MW186	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**6.16**	**8.82**	**9.86**
0932_QC107_201001	MW186	Intermediate	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**6.34**	**9.11**	**10.1**
0932_MW186_201001*	MW186	Intermediate	01 Oct 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**7.3**	**10.28**	**11.76**
0932_MW184_201110*	MW184	Intermediate	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_201110*	MW185	Intermediate	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_210524*	MW172	Intermediate	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.3**	**17.8**	**19.3**
0932_MW182_210524*	MW182	Intermediate	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.92**	**4.25**	**4.44**
0932_MW184_210524	MW184	Intermediate	24 May 2021	SA01	<0.05	**0.11**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.1**	**21.2**	**22.7**
0932_QC105_210524	MW184	Intermediate	24 May 2021	SA01	<0.05	**0.09**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.1**	**21**	**22.8**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW184_210524*	MW184	Intermediate	24 May 2021	SA01	<0.01	**0.17**	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**13.4**	**23.49**	**26.02**
0932_MW174_210525*	MW174	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.25**	**0.87**	**1.08**
0932_MW178_210525	MW178	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.6**	**38**	**41**
0932_MW179_210525*	MW179	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.2**	**0.2**	**0.2**
0932_MW181_210525*	MW181	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.47**	**0.55**
0932_MW183_210525*	MW183	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.67**	**0.81**
0932_MW186_210525*	MW186	Intermediate	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.53**	**13.8**	**17.1**
0932_MW178_210526*	MW178	Intermediate	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_210526*	MW176	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.74**	**5.31**	**5.46**
0932_MW180_210526*	MW180	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.06**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**163**	**229**	**243**
0932_MW185_210526*	MW185	Intermediate	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**138**	**193**	**213**
0932_MW172_210728*	MW172	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.6**	**17.7**	**19.6**
0932_MW185_210728	MW185	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.03	<0.09	<0.03	<0.09	<0.09	<0.03	<0.09	**81.9**	**118**	**128**
0932_QC101_210728	MW185	Intermediate	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**92.4**	**131**	**141**
0932_MW185_210728*	MW185	Intermediate	28 Jul 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**136**	**189.5**	**214.34**
0932_MW176_210729*	MW176	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**11.9**	**17.3**	**18.2**
0932_MW179_210729*	MW179	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW186_210729*	MW186	Intermediate	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.97**	**11.7**	**12.5**
0932_MW181_210730*	MW181	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.43**	**0.46**
0932_MW182_210730*	MW182	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.92**	**1.61**	**1.71**
0932_MW183_210730*	MW183	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.11**	**0.88**	**1.01**
0932_MW184_210730*	MW184	Intermediate	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.71**	**3.01**	**3.31**
0932_MW174_210803*	MW174	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.33**	**1.02**	**1.15**
0932_MW178_210803	MW178	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.7**	**36.8**	**39**
0932_QC106_210803	MW178	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27.1**	**40.2**	**42.5**
0932_MW178_210803*	MW178	Intermediate	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**40.1**	**55.94**	**62.16**
0932_MW180_210803	MW180	Intermediate	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.24**	**0.24**
0932_MW180_210803*	MW180	Intermediate	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.23**	**0.33**	**0.35**
0932_MW172_230327*	MW172	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_230327*	MW174	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_230327*	MW179	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_230327*	MW180	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW181_230327*	MW181	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_230327*	MW182	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_230327*	MW183	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_230327*	MW184	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_230327*	MW185	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW186_230327*	MW186	Intermediate	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_230328	MW172	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.73**	**11.3**	**12.6**
0932_MW176_230328*	MW176	Intermediate	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_230328	MW174	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.24**	**0.43**	**0.48**
0932_MW178_230328*	MW178	Intermediate	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_230328	MW179	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.15**	**0.15**	**0.15**
0932_MW181_230328	MW181	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.36**	**0.4**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW182_230328	MW182	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.6**	**2.61**	**2.78**
0932_MW186_230328	MW186	Intermediate	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.2**	**11.8**	**13.2**
0932_MW178_230329	MW178	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**21.8**	**33.2**	**37**
0932_QC103_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.46**	**0.52**	**0.55**
0932_MW180_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.47**	**0.54**	**0.54**
0932_QC203_230329	MW180	Intermediate	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.58**	**0.71**	**0.76**
0932_MW183_230329	MW183	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.19**	**0.72**	**0.8**
0932_QC101_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**102**	**141**	**156**
0932_QC201_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**109**	**154.8**	**173.84**
0932_MW185_230329	MW185	Intermediate	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**107**	**144**	**158**
0932_MW176_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.12**	**5.85**	**6.11**
0932_QC104_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.38**	**6.19**	**6.47**
0932_QC204_230330	MW176	Intermediate	30 Mar 2023	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**9**	**11.44**	**12.47**
0932_MW184_230330	MW184	Intermediate	30 Mar 2023	SA01	<0.05	**0.12**	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.19**	**14.3**	**15.6**
0932_MW186_240617*	MW186	Intermediate	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_240618*	MW176	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_240618*	MW176	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_240618*	MW184	Intermediate	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619	MW185	Intermediate	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_240626*	MW185	Intermediate	26 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_241206*	MW172	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**10.85**	**15.73**	**18.391**
0932_MW174_241206*	MW174	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.292**	**1.288**	**1.709**
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC204_241206	MW179	Intermediate	06 Dec 2024	SA01	<0.0010	**0.00052**	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.15**	-	**0.19**
0932_QC104_241206	MW179	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.225**	**0.284**	**0.303**
0932_MW179_241206*	MW179	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.254**	**0.314**	**0.33**
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC105_241206	MW184	Intermediate	06 Dec 2024	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**53**	**82.26**	**89.86**
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC205_241206	MW184	Intermediate	06 Dec 2024	SA01	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**12**	-	**20**
0932_MW184_241206*	MW184	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**13.9**	**21.55**	**24.057**
0932_MW185_241206*	MW185	Intermediate	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.12	<0.12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**86**	**89.78**	**92.27**
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_241209*	MW180	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.42**	**0.547**	**0.589**
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_241209*	MW182	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.25**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**29**	**37.27**	**40.2**
0932_MW183_241209*	MW183	Intermediate	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.032**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**66**	**87.71**	**95.722**
0932_MW172_250506*	MW172	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW172_250506*	MW172	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_250506*	MW174	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW174_250506*	MW174	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW172_250506	MW172	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.7**	**18.4**	**21.1**
0932_MW174_250506	MW174	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.34**	**1.33**	**1.72**
0932_MW179_250506*	MW179	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_250506*	MW179	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW179_250506	MW179	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.12**	**0.12**
0932_MW180_250506*	MW180	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_250506*	MW180	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW180_250506	MW180	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.37**	**0.47**	**0.5**
0932_MW182_250506*	MW182	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_250506*	MW182	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_250506*	MW183	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW183_250506*	MW183	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW182_250506	MW182	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**23.7**	**31.1**	**33.4**
0932_MW183_250506	MW183	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.12**	**0.76**	**0.96**
0932_MW184_250506*	MW184	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250506*	MW184	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250506	MW184	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.51**	**7.1**	**7.78**
0932_MW185_250506*	MW185	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250506*	MW185	Intermediate	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250506	MW185	Intermediate	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**45.2**	**46.8**	**48.4**
0932_MW176_250516	MW176	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**4.46**	**5.03**	**5.28**
0932_MW178_250516	MW178	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19**	**29.2**	**32.6**
0932_MW181_250516	MW181	Intermediate	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.48**	**0.59**
0932_MW186_250519	MW186	Intermediate	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**8.71**	**11.9**	**13.8**
0932_MW186_250617	MW186	Intermediate	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW176_250618	MW176	Intermediate	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW184_250618	MW184	Intermediate	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW185_250620	MW185	Intermediate	20 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932-PCMB19	MW060	Shallow	18 May 2016	SA01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW123_200921*	MW123	Shallow	21 Sep 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC201_200922	MW123	Shallow	22 Sep 2020	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**197**	**230.7**	**244.9**
0932_QC101_200922	MW123	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.28**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**151**	**182**	**191**
0932_MW123_S_200922	MW123	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.3**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**155**	**187**	**196**
0932_MW154_200922*	MW154	Shallow	22 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.65**	**9.29**	**10.3**
0932_MW142_200924*	MW142	Shallow	24 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**479**	**548**	**575**
0932_QC106_200930	MW114	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**34.3**	**39.7**	**42.3**
0932_MW114_S_200930	MW114	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**34.1**	**39.8**	**42.6**
0932_MW114_200930*	MW114	Shallow	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**46**	**53.72**	**57.74**
0932_MW117_200930*	MW117	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11	**41.5**	**52.7**	**54.4**
0932_MW119_200930*	MW119	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**121**	**166**	**174**
0932_MW121_200930*	MW121	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**29.9**	**35**	**36.9**
0932_MW122_200930*	MW122	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**486**	**572**	**604**
0932_MW123_200930*	MW123	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**183**	**226**	**238**
0932_MW125_200930*	MW125	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**281**	**371**	**396**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW127_200930*	MW127	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.11**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**72.2**	**95.7**	**101**
0932_MW129_200930*	MW129	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**4.87**	**6.56**	**7.27**
0932_MW130_200930*	MW130	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**5**	**6.75**	**7.55**
0932_MW133_200930*	MW133	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11	**27.9**	**32.8**	**34.4**
0932_MW140_200930*	MW140	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**32.8**	**39**	**41**
0932_MW141_S_200930	MW141	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**86.1**	**92**	**95.4**
0932_MW142_200930*	MW142	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**261**	**310**	**327**
0932_MW154_200930*	MW154	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**5.6**	**7.46**	**8.12**
0932_MW159_200930*	MW159	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**7.15**	**19.3**	**21.4**
0932_MW161_S_200930	MW161	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.79**	**2.84**	**2.99**
0932_QC104_200930	MW161	Shallow	30 Sep 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.85**	**2.86**	**3**
0932_MW161_200930*	MW161	Shallow	30 Sep 2020	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.14**	**3.91**	**4.41**
0932_MW120_201001*	MW120	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**151**	**218**	**232**
0932_MW134_201001*	MW134	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.25**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**132**	**164**	**173**
0932_MW137_201001*	MW137	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	**0.12**	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**160**	**195**	**207**
0932_MW156_201001*	MW156	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**20.2**	**23.9**	**25.3**
0932_MW157_201001*	MW157	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.32**	**0.86**	**0.93**
0932_MW158_201001*	MW158	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**45.5**	**75.2**	**82**
0932_MW160_201001*	MW160	Shallow	01 Oct 2020	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	**28.9**	**43.5**	**48.7**
0932_MW158_201110*	MW158	Shallow	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_201110*	MW160	Shallow	10 Nov 2020	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_210524*	MW120	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**100**	**146**	**157**
0932_MW122_210524*	MW122	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**602**	**690**	**730**
0932_MW129_210524*	MW129	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**7.37**	**10.5**	**11.6**
0932_MW133_210524*	MW133	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.6**	**23.7**	**25.7**
0932_MW134_210524*	MW134	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.06**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.8**	**43.8**	**46.2**
0932_MW141_210524*	MW141	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**91.8**	**98.7**	**103**
0932_MW142_210524*	MW142	Shallow	24 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	**0.1**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**300**	**361.9**	**382.6**
0932_QC104_210524	MW142	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**320**	**379**	**400**
0932_MW142_210524	MW142	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**330**	**393**	**418**
0932_MW157_210524*	MW157	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.48**	**1.34**	**1.4**
0932_MW159_210524*	MW159	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.8**	**22.6**	**25.4**
0932_MW161_210524*	MW161	Shallow	24 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1**	**3.55**	**3.69**
0932_MW130_210525	MW130	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.4**	**18.4**	**21.7**
0932_MW156_210525*	MW156	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**42.8**	**48.3**	**52.3**
0932_MW158_210525*	MW158	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**24.8**	**35.8**	**38.3**
0932_MW160_210525	MW160	Shallow	25 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**19.7**	**34.8**	**39.4**
0932_QC103_210526	MW114	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**35.4**	**41.5**	**44.6**
0932_MW114_210526*	MW114	Shallow	26 May 2021	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**39**	**46.11**	**49.42**
0932_MW114_210526	MW114	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**38.5**	**44.4**	**47.2**
0932_MW117_210526*	MW117	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**43.7**	**54**	**55.7**
0932_MW119_210526*	MW119	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.24**	**0.36**	**0.36**
0932_MW121_210526*	MW121	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**33.5**	**46.4**	**49**
0932_MW123_210526*	MW123	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	**0.24**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**235**	**280**	**297**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW130_210526*	MW130	Shallow	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_210526*	MW125	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	285	388	424
0932_MW137_210526*	MW137	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.15	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	154	186	195
0932_MW140_210526*	MW140	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	34.3	41.1	43.7
0932_MW154_210526*	MW154	Shallow	26 May 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	7.33	10	10.9
0932_MW160_210526*	MW160	Shallow	26 May 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW060_210708*	MW060	Shallow	08 Jul 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_210728*	MW114	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.1	45.8	49.2
0932_MW117_210728*	MW117	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.4	48.5	50.3
0932_MW129_210728*	MW129	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.48	9.28	10.3
0932_MW140_210728*	MW140	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30	36.5	39.4
0932_MW141_210728*	MW141	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	102	108	112
0932_MW159_210728*	MW159	Shallow	28 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.9	24.6	28.2
0932_MW122_210729*	MW122	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.07	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	753	844	877
0932_MW130_210729*	MW130	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.7	20.6	22.3
0932_MW142_210729*	MW142	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.07	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	555	623	656
0932_MW156_210729*	MW156	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.8	29.7	30.9
0932_MW158_210729*	MW158	Shallow	29 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.9	22.1	23.2
0932_MW119_210730*	MW119	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.06	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	84.8	115	120
0932_MW121_210730*	MW121	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.7	41.9	43.2
0932_MW125_210730*	MW125	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.05	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	283	364	385
0932_MW134_210730*	MW134	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30.9	40.5	41.9
0932_MW137_210730*	MW137	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.17	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	135	161	167
0932_MW160_210730*	MW160	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.1	33.2	36.6
0932_MW161_210730*	MW161	Shallow	30 Jul 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56	2.29	2.33
0932_MW120_210803*	MW120	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	100	147	154
0932_MW123_210803*	MW123	Shallow	03 Aug 2021	SA01	<0.01	<0.05	<0.01	<0.01	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	290	334.1	352.49
0932_MW123_210803	MW123	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.25	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	185	230	240
0932_QC105_210803	MW123	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	195	239	251
0932_MW133_210803*	MW133	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.4	22.8	24.3
0932_MW154_210803*	MW154	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.08	12.4	13.2
0932_MW157_210803*	MW157	Shallow	03 Aug 2021	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.98	1.01
0932_MW060_220608*	MW060	Shallow	08 Jun 2022	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_230327*	MW154	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_230327*	MW119	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_230327*	MW120	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_230327*	MW121	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW122_230327*	MW122	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_230327*	MW123	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_230327*	MW125	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_230327*	MW129	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW130_230327*	MW130	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW134_230327*	MW134	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW137_230327*	MW137	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW140_230327*	MW140	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_230327*	MW141	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_230327*	MW142	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_230327*	MW156	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW159_230327*	MW159	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW161_230327*	MW161	Shallow	27 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_230328*	MW114	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW117_230328*	MW117	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_230328	MW129	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.2	15.7	17.5
0932_MW130_230328	MW130	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.5	18.8	21.2
0932_MW134_230328	MW134	Shallow	28 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.44**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.3	38	40.5
0932_MW157_230328*	MW157	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_230328*	MW158	Shallow	28 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_230329	MW114	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	35.7	41.4	45.8
0932_MW119_230329	MW119	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.21**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	77.3	101	107
0932_MW120_230329	MW120	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.06**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	90.8	124	133
0932_MW121_230329	MW121	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8	26.4	28.3
0932_MW125_230329	MW125	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.08**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	202	260	280
0932_MW137_230329	MW137	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.17**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	86.6	103	109
0932_MW140_230329	MW140	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.9	23.6	26.5
0932_MW141_230329	MW141	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	115	122	126
0932_MW156_230329	MW156	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	28.6	34.1	36.6
0932_MW160_230329*	MW160	Shallow	29 Mar 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_230329	MW158	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	44.7	53.5	57.4
0932_MW159_230329	MW159	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.72	15.7	18.1
0932_MW161_230329	MW161	Shallow	29 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.59	3.82	4.26
0932_MW117_230330	MW117	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.5	33.7	35.5
0932_MW122_230330	MW122	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.16**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	251	282	296
0932_MW123_230330	MW123	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.33**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	164	214	237
0932_MW142_230330	MW142	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	351	393	422
0932_MW157_230330	MW157	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.7	1.33	1.44
0932_MW160_230330	MW160	Shallow	30 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.2	24.8	28.9
0932_MW133_230331	MW133	Shallow	31 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	20.9	24.5	26.6
0932_MW154_230331	MW154	Shallow	31 Mar 2023	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12	17	19.2
0932_MW060_230608*	MW060	Shallow	08 Jun 2023	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_240616*	MW121	Shallow	16 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_240617	MW121	Shallow	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_240617*	MW156	Shallow	17 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_240618*	MW123	Shallow	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW139_240618*	MW139	Shallow	18 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_240619*	MW114	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619*	MW141	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_240619*	MW141	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_240619*	MW142	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW154_240619*	MW154	Shallow	19 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_240626*	MW140	Shallow	26 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW117_240627*	MW117	Shallow	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW192_240627*	MW192	Shallow	27 Jun 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_241206*	MW119	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.06	<0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**79**	**107.2**	**115.3**
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_241206*	MW129	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**9.8**	**15.46**	**18.5**
0932_MW133_241206*	MW133	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.0125	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**21.1**	**26.53**	**29.22**
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_241206*	MW141	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**117**	**155.9**	**177.4**
0932_QC103_241206	MW141	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**121**	**167.4**	**187.3**
0932_QC203_241206	MW141	Shallow	06 Dec 2024	SA01	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**140**	-	**210**
0932_MW142_241206*	MW142	Shallow	06 Dec 2024	SA01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**56**	**78.75**	**84.27**
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_241206*	MW160	Shallow	06 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**15.79**	**26.98**	**32.39**
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_241209*	MW120	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.034**	**0.038**	**0.038**
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_241209*	MW125	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	**0.09**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1,400**	**1,854**	**1,987.09**
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW134_241209*	MW134	Shallow	09 Dec 2024	SA01	<0.001	**0.007**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3.9**	**5.403**	**5.802**
0932_MW154_241209*	MW154	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**24.94**	**31.88**	**35.382**
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_241209*	MW158	Shallow	09 Dec 2024	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**85**	**108.56**	**119.123**
0932_MW154_250506*	MW154	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_250506*	MW154	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506*	MW119	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506*	MW119	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_250506*	MW120	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW120_250506*	MW120	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW119_250506	MW119	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.52**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**139**	**184**	**200**
0932_MW120_250506	MW120	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**33.1**	**48**	**52.9**
0932_MW125_250506*	MW125	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_250506*	MW125	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506*	MW129	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506*	MW129	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_250506*	MW133	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW133_250506*	MW133	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW125_250506	MW125	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.09**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**96.8**	**118**	**129**
0932_MW134_250506*	MW134	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW134_250506*	MW134	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW129_250506	MW129	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.47**	**15.2**	**17.9**
0932_QC102_250506	MW133	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.3**	**22**	**24.2**
0932_MW133_250506	MW133	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**18.8**	**22.4**	**24.5**
0932_QC202_250506	MW133	Shallow	06 May 2025	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**18.1**	**21.21**	**23.14**
0932_MW134_250506	MW134	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.04**	**3.49**	**3.87**
0932_MW141_250506*	MW141	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250506*	MW141	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_250506*	MW142	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW142_250506*	MW142	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250506	MW141	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**84.3**	**126**	**146**
0932_MW142_250506	MW142	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.03**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**98.8**	**104**	**108**
0932_MW154_250506	MW154	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**14.7**	**20.3**	**23.2**
0932_MW158_250506*	MW158	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_250506*	MW158	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_250506*	MW160	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW160_250506*	MW160	Shallow	06 May 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW158_250506	MW158	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**60.1**	**74.1**	**81.7**
0932_MW160_250506	MW160	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.2**	**26.3**	**32.1**
0932_QC103_250506	MW160	Shallow	06 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**15.3**	**26.7**	**32.9**
0932_QC203_250506	MW160	Shallow	06 May 2025	SA01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**16.8**	**30.18**	**37.26**
0932_MW121_250516	MW121	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**28**	**39**	**42**
0932_MW127_250516	MW127	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.48**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**105**	**147**	**159**
0932_MW137_250516	MW137	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**131**	**172**	**184**
0932_MW157_250516	MW157	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.57**	**1.8**	**2.21**
0932_MW161_250516	MW161	Shallow	16 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.59**	**2.59**	**3.27**
0932_MW114_250519	MW114	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10**	**10.2**	**10.4**
0932_MW117_250519	MW117	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**34.5**	**52.5**	**58.6**
0932_MW122_250519	MW122	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**218**	**244**	**257**
0932_PW139_250519	MW139	Shallow	19 May 2025	SA01	<0.001	**0.008**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.84**	**0.911**	**0.933**
0932_MW140_250519	MW140	Shallow	19 May 2025	SA01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**27**	**33.6**	**37.2**
0932_PW140_250520	MW140	Shallow	20 May 2025	SA01	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.439**	**0.477**	**0.49**
0932_MW117_250617	MW117	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW121_250617	MW121	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW156_250617	MW156	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW192_250617	MW192	Shallow	17 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW123_250618	MW123	Shallow	18 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW141_250620	MW141	Shallow	20 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW114_250624	MW114	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_250624	MW140	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW154_250624	MW154	Shallow	24 Jun 2025	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW140_000100*	MW140	Shallow		SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932-F03MW	MW036	Unknown	18 May 2016	SA01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW059_210708*	MW059	Unknown	08 Jul 2021	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW059_220608*	MW059	Unknown	08 Jun 2022	SA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_160517*	MW034	Shallow	17 May 2016	SA02	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW021_180409*	MW021	Shallow	09 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_180409*	MW034	Shallow	09 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021_180409	MW021	Shallow	09 Apr 2018	SA02	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1.74**	**1.91**	**1.98**
MW034_180409	MW034	Shallow	09 Apr 2018	SA02	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.43**	**0.45**	**0.45**
0932_MW022_180410*	MW022	Shallow	10 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022_180410	MW022	Shallow	10 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	**0.61**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**250**	**300.8**	**314.81**
0932_MW023_180411*	MW023	Shallow	11 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW024_180411*	MW024	Shallow	11 Apr 2018	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023_180411	MW023	Shallow	11 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**400**	**491.8**	**536.4**
QC130_180411	MW023	Shallow	11 Apr 2018	SA02	<0.2	**0.24**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**410**	**501.64**	**527.64**
QC230_180411	MW023	Shallow	11 Apr 2018	SA02	<0.05	<0.05	<0.05	<0.05	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**79.1**	**94.9**	**98.5**
MW024_180411	MW024	Shallow	11 Apr 2018	SA02	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**249**	**301**	**316.8**
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_241209*	MW021	Shallow	09 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.91**	**1.02**	**1.083**
0932_MW034_241209*	MW034	Shallow	09 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.233**	**0.245**	**0.251**
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_241210*	MW022	Shallow	10 Dec 2024	SA02	<0.001	<0.005	<0.001	<0.001	**0.41**	<0.005	**0.007**	<0.005	<0.005	<0.005	<0.005	**61.2**	**66.357**	**68.172**
0932_MW023_241210*	MW023	Shallow	10 Dec 2024	SA02	**0.001**	<0.3	<0.3	<0.001	**0.25**	<0.005	**0.008**	<0.005	<0.005	<0.005	<0.005	**740**	**871.3**	**914.859**
0932_MW021_250506*	MW021	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_250506*	MW021	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506*	MW023	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506*	MW023	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW021_250506	MW021	Shallow	06 May 2025	SA02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.91**	**0.97**	**0.97**
0932_MW034_250506*	MW034	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW034_250506*	MW034	Shallow	06 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW023_250506	MW023	Shallow	06 May 2025	SA02	<0.05	**0.07**	<0.05	<0.05	**0.12**	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	**237**	**295**	**312**
0932_MW034_250506	MW034	Shallow	06 May 2025	SA02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.17**	**0.17**	**0.17**
0932_MW201_250508*	MW201	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW201_250508*	MW201	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508*	MW022	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508*	MW022	Shallow	08 May 2025	SA02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW022_250508	MW022	Shallow	08 May 2025	SA02	<0.05	**0.08**	<0.05	<0.05	**0.11**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**35.8**	**40.5**	**42**
0932_MW201_250508	MW201	Shallow	08 May 2025	SA02	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.879**	**1.46**	**1.51**
0932_MW003_180409*	MW003	Shallow	09 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW003_180409	MW003	Shallow	09 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.19**	**0.23**	**0.25**
0932_MW004_180410*	MW004	Shallow	10 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004_180410	MW004	Shallow	10 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.26**	**0.33**	**0.35**
0932_MW010_180411*	MW010	Shallow	11 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW010_180411	MW010	Shallow	11 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.09**	**0.11**	**0.12**
0932_MW011_180412*	MW011	Shallow	12 Apr 2018	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
MW011_180412	MW011	Shallow	12 Apr 2018	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.1
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_241206*	MW004	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.074**	**0.096**	**0.108**
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_241206*	MW010	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.07**	**0.092**	**0.104**
0932_MW011_241206*	MW011	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.039**	**0.05**	**0.056**
0932_MW202_241206*	MW202	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.025**	**0.047**	**0.053**
0932_QC201_241206	MW203	Shallow	06 Dec 2024	SA03	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	**0.036**	-	**0.047**
0932_QC101_241206	MW203	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.032**	**0.042**	**0.046**
0932_MW203_241206*	MW203	Shallow	06 Dec 2024	SA03	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.034**	**0.042**	**0.044**
0932_MW010_250502*	MW010	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_250502*	MW010	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_250502*	MW202	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW202_250502*	MW202	Shallow	02 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.06**	**0.06**
0932_MW010_250502	MW010	Shallow	02 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.003	<0.007	<0.003	<0.007	<0.007	<0.003	<0.007	**0.055**	**0.098**	**0.103**
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_MW202_250502	MW202	Shallow	02 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.037**	**0.059**	**0.062**
0932_MW004_250505*	MW004	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_250505*	MW004	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW004_250505	MW004	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_MW203_250505*	MW203	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW203_250505*	MW203	Shallow	05 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_QC102_250505	MW203	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	**0.04**	**0.04**
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
0932_QC202_250505	MW203	Shallow	05 May 2025	SA03	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.06**	**0.06**	<0.1
0932_MW203_250505	MW203	Shallow	05 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	**0.08**	**0.08**
0932_MW011_250506*	MW011	Shallow	06 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_250506*	MW011	Shallow	06 May 2025	SA03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	**0.02**	**0.02**
0932_MW011_250506	MW011	Shallow	06 May 2025	SA03	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.023**	**0.031**	**0.034**
0932_MW019_180405*	MW019	Shallow	05 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW019_180405	MW019	Shallow	05 Apr 2018	SA04	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**239**	**283.4**	**301.7**
0932_MW018_180406*	MW018	Shallow	06 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_180406*	MW057	Shallow	06 Apr 2018	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW018_180406	MW018	Shallow	06 Apr 2018	SA04	<0.01	**1**	<0.01	<0.01	**0.71**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**1,260**	**#######**	**1,575.31**
MW057_180406	MW057	Shallow	06 Apr 2018	SA04	<0.01	**0.06**	**0.15**	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6.6**	**8.87**	**10.02**
0932_MW057_240625*	MW057	Shallow	25 Jun 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_241205*	MW018	Shallow	05 Dec 2024	SA04	**0.002**	**0.31**	<0.125	<0.001	**0.62**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**730**	**836.61**	**885.042**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW019_241205	MW019	Shallow	05 Dec 2024	SA04	<0.001	<0.0625	<0.001	<0.001	**0.053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**97**	**112.75**	**118.713**
0932_MW019_241205*	MW019	Shallow	05 Dec 2024	SA04	<0.010	**0.028**	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	**100**	-	**130**
0932_QC101_241205	MW019	Shallow	05 Dec 2024	SA04	<0.001	<0.125	<0.001	<0.001	**0.055**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**103**	**118.92**	**125.075**
0932_MW204_241205	MW204	Shallow	05 Dec 2024	SA04	<0.001	**0.016**	<0.001	<0.001	**0.082**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**38.6**	**43.495**	**45.932**
0932_MW204_241206*	MW204	Shallow	06 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_241206*	MW204	Shallow	06 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_241210*	MW057	Shallow	10 Dec 2024	SA04	<0.001	**0.054**	**0.082**	**0.002**	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**6.7**	**10.642**	**13.175**
0932_MW019_250501*	MW019	Shallow	01 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_250501*	MW019	Shallow	01 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW019_250501	MW019	Shallow	01 May 2025	SA04	<0.05	<0.05	<0.05	<0.05	**0.09**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**72.5**	**86.3**	**91.8**
0932_MW018_250502*	MW018	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_250502*	MW018	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW018_250502	MW018	Shallow	02 May 2025	SA04	<0.05	**0.33**	<0.05	<0.05	**0.38**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**499**	**588**	**627**
0932_MW057_250502*	MW057	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_250502*	MW057	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_250502*	MW204	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW204_250502*	MW204	Shallow	02 May 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW057_250502	MW057	Shallow	02 May 2025	SA04	<0.05	**0.07**	**0.09**	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.17**	**10.2**	**13.2**
0932_MW204_250502	MW204	Shallow	02 May 2025	SA04	<0.05	**0.06**	<0.05	<0.05	**0.38**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**363**	**416**	**446**
0932_MW057_250616	MW057	Shallow	16 Jun 2025	SA04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_180405*	MW017	Shallow	05 Apr 2018	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017_180405	MW017	Shallow	05 Apr 2018	SA05	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**55.1**	**85.5**	**98.32**
0932_MW017_240625*	MW017	Shallow	25 Jun 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_241210*	MW017	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**68.7**	**103.57**	**130.57**
0932_MW205_241210*	MW205	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.302**	**0.324**	**0.342**
0932_MW212_241210*	MW212	Shallow	10 Dec 2024	SA05	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.93**	**3.276**	**4.235**
0932_MW017_250502*	MW017	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_250502*	MW017	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_250502*	MW205	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW205_250502*	MW205	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_250502*	MW212	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW212_250502*	MW212	Shallow	02 May 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW017_250502	MW017	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**51.4**	**70.6**	**78.6**
0932_MW205_250502	MW205	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.18**	**3.6**	**4.34**
0932_MW212_250502	MW212	Shallow	02 May 2025	SA05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	**0.09**	**0.09**
0932_MW017_250616	MW017	Shallow	16 Jun 2025	SA05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_180404*	MW015	Shallow	04 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_180405*	MW007	Shallow	05 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_180405*	MW016	Shallow	05 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007_180405	MW007	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.3**	**0.36**	**0.4**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
QC229_180405	MW016	Shallow	05 Apr 2018	SA06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	**17.8**	**19.9**	**20.4**
MW016_180405	MW016	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.09**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**31.8**	**35.35**	**37.1**
QC129_180405	MW016	Shallow	05 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.17**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**56**	**61.73**	**64.9**
0932_MW008_180406*	MW008	Shallow	06 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_180406*	MW062	Shallow	06 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008_180406	MW008	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**6**	**7.77**	**8.36**
MW015_180406	MW015	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.39**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**107**	**119.02**	**125.23**
MW062_180406	MW062	Shallow	06 Apr 2018	SA06	<0.01	<0.05	<0.01	<0.01	**0.06**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**39.7**	**45.09**	**47.61**
0932_MW061_180412*	MW061	Shallow	12 Apr 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061_180412	MW061	Shallow	12 Apr 2018	SA06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**95**	**134.1**	**141.3**
0932_MW104_181219*	MW104	Shallow	19 Dec 2018	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW104_181219	MW104	Shallow	19 Dec 2018	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**17.5**	**19.46**	**20.42**
0932_MW015_191219*	MW015	Shallow	19 Dec 2019	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_241205*	MW015	Shallow	05 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	**0.087**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**12.7**	**14.175**	**14.824**
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_241205*	MW016	Shallow	05 Dec 2024	SA06	<0.001	**0.006**	**0.006**	<0.001	**0.19**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**24.1**	**26.625**	**27.627**
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_241205*	MW062	Shallow	05 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**16.3**	**17.203**	**17.806**
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_241205*	MW104	Shallow	05 Dec 2024	SA06	<0.001	**0.01**	<0.001	<0.001	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**6**	**7.309**	**7.797**
0932_MW206_241205*	MW206	Shallow	05 Dec 2024	SA06	<0.001	**0.018**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**2.52**	**2.949**	**3.156**
0932_MW211_241205*	MW211	Shallow	05 Dec 2024	SA06	<0.001	**0.02**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.239**	**0.309**	**0.331**
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_241206*	MW007	Shallow	06 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3.85**	**4.95**	**5.7**
0932_MW008_241206*	MW008	Shallow	06 Dec 2024	SA06	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**5.9**	**7.526**	**8.258**
0932_MW221_250501*	MW221	Shallow	01 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW221_250501*	MW221	Shallow	01 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW221_250501	MW221	Shallow	01 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.87**	**2.43**	**2.76**
0932_MW007_250502*	MW007	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_250502*	MW007	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502*	MW015	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502*	MW015	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW007_250502	MW007	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.76**	**4.82**	**5.78**
0932_MW016_250502*	MW016	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW016_250502*	MW016	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502*	MW062	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502*	MW062	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW015_250502	MW015	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.05**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**12.4**	**13.6**	**14.3**
0932_MW206_250502*	MW206	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW206_250502*	MW206	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW016_250502	MW016	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.2**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**35.7**	**39.4**	**41.1**
0932_MW211_250502*	MW211	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW211_250502*	MW211	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW219_250502*	MW219	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW219_250502*	MW219	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW062_250502	MW062	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.23**	**10.1**	**10.7**
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502*	MW104	Shallow	02 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW104_250502	MW104	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**9.02**	**10.7**	**11.2**
0932_MW206_250502	MW206	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.9**	**4.67**	**5.01**
0932_QC102_250502	MW206	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.97**	**4.72**	**5.09**
0932_QC202_250502	MW206	Shallow	02 May 2025	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.9**	**5.8**	**6.21**
0932_MW211_250502	MW211	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.07**	**0.07**	**0.07**
0932_MW219_250502	MW219	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	**0.02**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.9**	**12.9**	**13.6**
0932_QC103_250502	MW219	Shallow	02 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	**11**	**13**	-
0932_QC203_250502	MW219	Shallow	02 May 2025	SA06	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**12.5**	**14.87**	**15.62**
0932_MW008_250505*	MW008	Shallow	05 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_250505*	MW008	Shallow	05 May 2025	SA06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW008_250505	MW008	Shallow	05 May 2025	SA06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**5.13**	**6.56**	**7.26**
0932_MW054_180405*	MW054	Shallow	05 Apr 2018	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054_180405	MW054	Shallow	05 Apr 2018	SA07	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**8.4**	**10.32**	**11.87**
0932_MW064_180412*	MW064	Shallow	12 Apr 2018	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064_180412	MW064	Shallow	12 Apr 2018	SA07	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**2.3**	**2.85**	**3.03**
0932_MW064_220608*	MW064	Shallow	08 Jun 2022	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW064_230606*	MW064	Shallow	06 Jun 2023	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_241205*	MW207	Shallow	05 Dec 2024	SA07	<0.001	**0.046**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.97**	**2.556**	**2.89**
0932_MW207_250501*	MW207	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_250501*	MW207	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW220_250501*	MW220	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW220_250501*	MW220	Shallow	01 May 2025	SA07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.43**	**4.3**	**4.8**
0932_MW207_250501	MW207	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.43**	**4.3**	**4.8**
0932_MW220_250501	MW220	Shallow	01 May 2025	SA07	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.72**	**0.89**	**1.03**
0932_MW102_181219*	MW102	Intermediate	19 Dec 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW102_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
QC120_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.04**	<0.05	<0.1
QC221_181219	MW102	Intermediate	19 Dec 2018	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	**0.05**	**0.05**
0932_MW033_160517*	MW033	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW058_160517*	MW058	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW032_160517*	MW032	Shallow	17 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW031_160518*	MW031	Shallow	18 May 2016	SA08	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932_MW031_180411*	MW031	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_180411*	MW032	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW033_180411*	MW033	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW031_180411	MW031	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.64**	**0.71**	**0.74**
MW032_180411	MW032	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.87**	**1.06**	**1.13**
0932_MW058_180411*	MW058	Shallow	11 Apr 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW033_180411	MW033	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.57**	**0.77**	**0.85**
MW058_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.05**	**0.05**	<0.1
QC131_180411	MW058	Shallow	11 Apr 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.05**	**0.05**	<0.1
QC231_180411	MW058	Shallow	11 Apr 2018	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.03**	**0.03**
0932_MW103_181219*	MW103	Shallow	19 Dec 2018	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW103_181219	MW103	Shallow	19 Dec 2018	SA08	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**4.3**	**5.87**	**6.29**
0932_MW033_200518*	MW033	Shallow	18 May 2020	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.18**	**1.56**	**1.82**
0932_MW031_210707*	MW031	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_210707*	MW032	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_210707*	MW033	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_210707*	MW058	Shallow	07 Jul 2021	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_220607*	MW031	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_220607*	MW032	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_220607*	MW033	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_220607*	MW058	Shallow	07 Jun 2022	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_230606	MW033	Shallow	06 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_230607	MW031	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_230607	MW032	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_230607	MW058	Shallow	07 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_230614*	MW031	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_230614*	MW032	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_230614*	MW033	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW058_230614*	MW058	Shallow	14 Jun 2023	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_241209*	MW031	Shallow	09 Dec 2024	SA08	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**3**	**3.44**	**3.697**
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_241209*	MW032	Shallow	09 Dec 2024	SA08	<0.001	**0.006**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**1.92**	**2.264**	**2.422**
0932_MW033_241209*	MW033	Shallow	09 Dec 2024	SA08	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.459**	**0.688**	**0.904**
0932_MW031_250505*	MW031	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_250505*	MW031	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505*	MW032	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505*	MW032	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW031_250505	MW031	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**2.84**	**2.99**	**3.09**
0932_MW033_250505*	MW033	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW033_250505*	MW033	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW032_250505	MW032	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.67**	**1.88**	**1.93**
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005	**0.57**	**0.829**	**0.993**
0932_MW033_250505	MW033	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.54**	**0.72**	**0.92**
0932_MW058_250505	MW058	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.03**	**0.03**

Table 3 – Groundwater Analytical Results

					PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.0004	0.0004	0.001	0.002	0.005	0.002	0.005	0.005	0.002	0.005	0.0002	0.002	0.0002
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location Code**	**Aquifer**	**Date**	**Monitoring Zone**														
0932_MW218_250505*	MW218	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW218_250505*	MW218	Shallow	05 May 2025	SA08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW218_250505	MW218	Shallow	05 May 2025	SA08	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	**0.05**	**0.05**
0932_MW035_180412*	MW035	Shallow	12 Apr 2018	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW035_180412	MW035	Shallow	12 Apr 2018	SA09	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.16**	**0.16**	**0.16**
0932_MW035_S_210706	MW035	Shallow	06 Jul 2021	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_210707*	MW035	Shallow	07 Jul 2021	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_220616*	MW035	Shallow	16 Jun 2022	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_230614*	MW035	Shallow	14 Jun 2023	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	<0.001	**0.006**	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.121**	**0.144**	**0.158**
0932_MW035_241210*	MW035	Shallow	10 Dec 2024	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512*	MW035	Shallow	12 May 2025	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512*	MW035	Shallow	12 May 2025	SA09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW035_250512	MW035	Shallow	12 May 2025	SA09	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.57**	**0.63**	**0.66**
0932_MW028_160518*	MW028	Shallow	18 May 2016	SA10	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
0932-QC101	MW028	Shallow	18 May 2016	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0932_MW028_180406*	MW028	Shallow	06 Apr 2018	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW028_180406	MW028	Shallow	06 Apr 2018	SA10	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**19.9**	**22.13**	**23.34**
0932_MW029_180406*	MW029	Shallow	06 Apr 2018	SA10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW029_180406	MW029	Shallow	06 Apr 2018	SA10	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**3.26**	**3.6**	**3.76**

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Table 4 - Biota Sample Identifiers and Analytical Data

							PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
							Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0005	0.0005	0.0003	0.0005	0.0003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Avian diet)									0.0082		0.0082								0.0024						
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Mammalian)									0.0031		0.0031								0.0028						
Field ID	**Location Code**	**Area**	**Ecological Food Group**	**Common Name**	**Date**																				
0932_BIOAFL001_241126	BIOAFL001	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0021**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL004_241126	BIOAFL004	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL006_241126	BIOAFL006	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL007_241126	BIOAFL007	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL009_241127	BIOAFL009	Port Phillip Bay Foreshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL011_241127	BIOAFL011	Port Phillip Bay Foreshore	Aquatic Vegetation	Caulerpa green algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL013_241127	BIOAFL013	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL015_241127	BIOAFL015	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL017_241127	BIOAFL017	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL020_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL021_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL023_250519	BIOAFL023	Port Phillip Bay Foreshore	Aquatic Vegetation	Caulerpa	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0014**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL025_250519	BIOAFL025	Port Phillip Bay Foreshore	Aquatic Vegetation	Red Foliose Algae	19 May 2025		<0.0005	**0.022**	<0.0003	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL027_250520	BIOAFL027	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL029_250520	BIOAFL029	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0004**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL031_250520	BIOAFL031	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL033_250520	BIOAFL033	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL035_250521	BIOAFL035	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	21 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0070**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0004**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL037_250521	BIOAFL037	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	21 May 2025		<0.0005	<0.0005	**0.0008**	<0.0005	**0.0043**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL039_250521	BIOAFL039	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	21 May 2025		<0.0005	<0.0005	**0.0003**	<0.0005	**0.0018**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC103_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC108_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC203_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024		<0.001	<0.001	<0.001	<0.001	**0.01**	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_QC208_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025		<0.001	<0.001	<0.001	<0.001	**0.001**	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_BIOAFL002_241126	BIOAFL002	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024		<0.0005	<0.0005	**0.0038**	<0.0005	**0.012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL003_241126	BIOAFL003	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL005_241126	BIOAFL005	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL008_241126	BIOAFL008	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL010_241127	BIOAFL010	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL012_241127	BIOAFL012	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL014_241127	BIOAFL014	Port Phillip Bay Inshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL016_241127	BIOAFL016	Port Phillip Bay Inshore	Aquatic Vegetation	Sea Lettuce	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL018_241127	BIOAFL018	Port Phillip Bay Inshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL019_241128	BIOAFL019	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	28 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFL022_250519	BIOAFL022	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	19 May 2025		<0.0005	**0.0019**	<0.0003	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL024_250519	BIOAFL024	Port Phillip Bay Inshore	Aquatic Vegetation	Sea Lettuce	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0022**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL026_250519	BIOAFL026	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL028_250520	BIOAFL028	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025		<0.0005	**0.0060**	**0.02**	<0.0005	**0.012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL030_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025		<0.0005	**0.012**	<0.0003	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL032_250520	BIOAFL032	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0014**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL034_250520	BIOAFL034	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	20 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0016**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL036_250521	BIOAFL036	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025		<0.0005	<0.0005	**0.0003**	<0.0005	**0.0043**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL038_250521	BIOAFL038	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025		<0.0005	**0.0021**	<0.0003	<0.0005	**0.0095**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL040_250521	BIOAFL040	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0034**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC104_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025		<0.0005	**0.0096**	<0.0003	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC204_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025		<0.001	<0.001	<0.001	<0.001	**0.002**	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_BIOAFA001_241126	BIOAFA001	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0057**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA006_241126	BIOAFA006	Port Phillip Bay Foreshore	Benthic Invertebrate	Snails	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0023**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA015_241126	BIOAFA015	Port Phillip Bay Foreshore	Benthic Invertebrate	Snails	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0072**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA017_241126	BIOAFA017	Port Phillip Bay Foreshore	Benthic Invertebrate	Shore Crab	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	**0.0051**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA022_241127	BIOAFA022	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA027_241127	BIOAFA027	Port Phillip Bay Foreshore	Benthic Invertebrate	Pipi	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA029_241127	BIOAFA029	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA035_241127	BIOAFA035	Port Phillip Bay Foreshore	Benthic Invertebrate	Common Limpet	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA036_241127	BIOAFA036	Port Phillip Bay Foreshore	Benthic Invertebrate	Shore Crab	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	**0.0070**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA042_241128	BIOAFA042	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	28 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA043_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025		<0.0005	**0.0011**	**0.0019**	<0.0005	**0.0054**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0011**	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA047_250519	BIOAFA047	Port Phillip Bay Foreshore	Benthic Invertebrate	Pipi	19 May 2025		<0.0005	<0.0005	<0.0003	<0.0005	**0.0013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA048_250519	BIOAFA048	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025		<0.0005	**0.0019**	**0.0025**	<0.0005	**0.0062**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	**0.0005**	**0.0018**	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA052_250519	BIOAFA052	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025		<0.0005	**0.0054**	**0.13**	**0.01**	**0.36**	<0.0005	**0.0014**	<0.0005	<0.0005	**0.025**	**0.017**	**0.051**	**0.0068**	**0.0021**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**
0932_BIOAFA058_250520	BIOAFA058	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025		**0.0065**	**0.0053**	**0.15**	**0.0040**	**0.049**	<0.0005	<0.0005	**0.0009**	**0.0006**	**0.0099**	**0.0017**	**0.0033**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA064_250520	BIOAFA064	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025		<0.0005	<0.0005	**0.0017**	<0.0005	**0.011**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0017**	<0.005	**0.0020**	**0.0006**	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA073_250520	BIOAFA073	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025		<0.0005	<0.0005	**0.0085**	**0.0005**	**0.013**	<0.0005	<0.0005	<0.0005	**0.0093**	**0.0031**	**0.0012**	**0.0039**	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA078_250520	BIOAFA078	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025		<0.0005	<0.0005	**0.0007**	<0.0005	**0.014**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005
0932_BIOAFA086_250521	BIOAFA086	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025		**0.0012**	<0.0005	**0.0069**	<0.0005	**0.011**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0033**	**0.0006**	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA091_250521	BIOAFA091	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025		<0.0005	<0.0005	**0.0005**	<0.0005	**0.012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005
0932_BIOAFA102_250521	BIOAFA102	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025		<0.0005	<0.0005	**0.0006**	<0.0005	**0.015**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005
0932_QC104_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025		<0.0005	**0.0010**	**0.0017**	<0.0005	**0.0052**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	<0.0005	**0.0011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC204_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025		<0.002	<0.002	<0.002	<0.002	**0.007**	-	<0.002	<0.02	<0.004	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	<0.004	<0.01
0932_BIOAFA002_241126	BIOAFA002	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0029**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA007_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024		<0.0005	<0.0005	<0.0003	<0.0005	**0.0079**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	**0.0014**	**0.0026**	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA014_241126	BIOAFA014	Port Phillip Bay Inshore	Benthic Invertebrate	Sand Shrimp	26 Nov 2024		<0.0005	<0.0005	**0.0017**	<0.0005	**0.0056**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA018_241126	BIOAFA018	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	26 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA023_241127	BIOAFA023	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA026_241127	BIOAFA026	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA028_241127	BIOAFA028	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA031_241127	BIOAFA031	Port Phillip Bay Inshore	Benthic Invertebrate	Sand Shrimp	27 Nov 2024

Point Cook HHERA

Table 4 - Biota Sample Identifiers and Analytical Data

						PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
						Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0005	0.0005	0.0003	0.0005	0.0003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Avian diet)								0.0082		0.0082								0.0024						
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Mammalian)								0.0031		0.0031								0.0028						
Field ID	**Location Code**	**Area**	**Ecological Food Group**	**Common Name**	**Date**																			
0932_BIOAFA061_250520	BIOAFA061	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA062_250520	BIOAFA062	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	**0.0045**	**0.0008**	**0.013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA063_250520	BIOAFA063	Port Phillip Bay Inshore	Benthic Invertebrate	Shore Crab	20 May 2025	<0.0005	<0.0005	**0.0054**	**0.0005**	**0.0064**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA065_250520	BIOAFA065	Port Phillip Bay Inshore	Benthic Invertebrate	Dumpling Squid	20 May 2025	<0.0005	<0.0005	**0.0009**	<0.0005	**0.0070**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA068_250520	BIOAFA068	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA070_250520	BIOAFA070	Port Phillip Bay Inshore	Benthic Invertebrate	Shore Crab	20 May 2025	<0.0005	<0.0005	**0.014**	**0.0007**	**0.013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0022**	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA072_250520	BIOAFA072	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0030**	<0.0005	<0.0005	<0.0005	**0.0017**	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA076_250520	BIOAFA076	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	20 May 2025	<0.0005	**0.14**	<0.0003	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA077_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	**0.0005**	<0.0005	**0.0020**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA079_250520	BIOAFA079	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0041**	<0.0005	<0.0005	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA082_250520	BIOAFA082	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA087_250521	BIOAFA087	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	**0.0016**	<0.0005	**0.0050**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA088_250521	BIOAFA088	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	**0.0006**	<0.0005	<0.0003	<0.0005	**0.0024**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA092_250521	BIOAFA092	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0068**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA095_250521	BIOAFA095	Port Phillip Bay Inshore	Benthic Invertebrate	Eleven-arm Seastar	21 May 2025	<0.0005	**0.0010**	<0.0003	<0.0005	**0.02**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0015**	**0.0014**	**0.0024**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA097_250521	BIOAFA097	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	**0.0010**	<0.0005	**0.0042**	<0.0005	<0.0005	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA100_250521	BIOAFA100	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0037**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA103_250521	BIOAFA103	Port Phillip Bay Inshore	Benthic Invertebrate	Cushion sea star	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0039**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA104_250521	BIOAFA104	Port Phillip Bay Inshore	Benthic Invertebrate	Eleven-arm Seastar	21 May 2025	<0.0005	**0.0070**	<0.0003	<0.0005	**0.011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0017**	**0.0012**	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA105_250521	BIOAFA105	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	**0.0010**	<0.0005	**0.0035**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA107_250521	BIOAFA107	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0021**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA110_250521	BIOAFA110	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC104_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024	<0.0005	<0.0005	<0.0003	<0.0005	**0.0078**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	**0.0010**	**0.0015**	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC104_241127	BIOAFA032	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC106_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	**0.0005**	<0.0005	**0.0021**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC107_250519	BIOAFA054	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	19 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC204_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	**0.011**	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	**0.001**	**0.003**	<0.002	<0.002	<0.002	<0.005	
0932_QC204_241127	BIOAFA032	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
0932_QC206_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.001	<0.001	<0.001	<0.001	**0.002**	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_QC207_250519	BIOAFA054	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	19 May 2025	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_BIOAFA085_250520	BIOAFA085	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	20 May 2025	<0.0005	<0.0005	**0.0017**	<0.0005	**0.021**	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA012_241126	BIOAFA012	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.0005	<0.0005	<0.0003	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA019_241126	BIOAFA019	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA034_241127	BIOAFA034	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA099_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0098**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC104_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.0005	<0.0005	**0.0008**	<0.0005	**0.0096**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC204_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.002	<0.002	<0.002	<0.002	**0.015**	-	<0.002	<0.02	<0.02	<0.004	<0.001	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	<0.004	<0.01
0932_QC208_241126	BIOAFA019	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_BIOAFA051_250519	BIOAFA051	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	19 May 2025	<0.0005	<0.0005	**0.0036**	<0.0005	**0.022**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA071_250520	BIOAFA071	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	**0.0017**	<0.0005	**0.019**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA080_250520	BIOAFA080	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	**0.0074**	**0.0009**	**0.029**	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA081_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	**0.0074**	**0.0014**	**0.059**	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	**0.0007**	**0.0014**	**0.0007**	**0.0008**	<0.0005	<0.0005	<0.0005
0932_BIOAFA094_250521	BIOAFA094	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	21 May 2025	<0.0005	<0.0005	**0.014**	**0.0020**	**0.043**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA098_250521	BIOAFA098	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	21 May 2025	<0.0005	**0.0006**	**0.02**	**0.0028**	**0.11**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	**0.0006**	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC105_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	**0.0075**	**0.0013**	**0.066**	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	**0.0008**	**0.0016**	**0.0008**	**0.0008**	<0.0005	<0.0005	<0.0005
0932_QC205_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.001	<0.001	**0.01**	**0.002**	**0.065**	-	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	**0.001**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
0932_BIOAFA020_241126	BIOAFA020	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.021**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA009_241126	BIOAFA009	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.025**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA005_241126	BIOAFA005	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.005	**0.0090**	<0.005	**0.077**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA016_241126	BIOAFA016	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA021_241126	BIOAFA021	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.0085**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA024_241127	BIOAFA024	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.0096**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA030_241127	BIOAFA030	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.019**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA033_241127	BIOAFA033	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.005	**0.016**	<0.005	**0.044**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA037_241127	BIOAFA037	Port Phillip Bay Inshore	Prey Fish	Gobies	27 Nov 2024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_BIOAFA046_250519	BIOAFA046	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.0005	<0.0005	**0.0009**	<0.0005	**0.0053**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA050_250519	BIOAFA050	Port Phillip Bay Inshore	Prey Fish	Flounder	19 May 2025	<0.0005	<0.0005	**0.0020**	<0.0005	**0.019**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA053_250519	BIOAFA053	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0089**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA056_250519	BIOAFA056	Port Phillip Bay Inshore	Prey Fish	Flathead	19 May 2025	<0.0005	<0.0005	**0.0016**	<0.0005	**0.019**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA059_250520	BIOAFA059	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	**0.0003**	<0.0005	**0.0040**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA066_250520	BIOAFA066	Port Phillip Bay Inshore	Prey Fish	Flathead	20 May 2025	<0.0005	**0.0013**	<0.0003	<0.0005	**0.011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA067_250520	BIOAFA067	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0042**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA069_250520	BIOAFA069	Port Phillip Bay Inshore	Prey Fish	Flounder	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.01**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA074_250520	BIOAFA074	Port Phillip Bay Inshore	Prey Fish	Mullet	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0020**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA075_250520	BIOAFA075	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0072**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA083_250520	BIOAFA083	Port Phillip Bay Inshore	Prey Fish	Garfish	20 May 2025	<0.0005	<0.0005	**0.0005**	<0.0005	**0.012**	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA084_250520	BIOAFA084	Port Phillip Bay Inshore	Prey Fish	Mullet	20 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0040**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA089_250521	BIOAFA089	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0017**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA090_250521	BIOAFA090	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0020**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA093_250521	BIOAFA093	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0042**	<0.0005	<0.0005	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA096_250521	BIOAFA096	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	**0.0011**	<0.0005	**0.0083**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA101_250521	BIOAFA101	Port Phillip Bay Inshore	Prey Fish	Weedfish	21 May 2025	**0.0010**	<0.0005	<0.0003	<0.0005	**0.011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA106_250521	BIOAFA106	Port Phillip Bay Inshore	Prey Fish	Weedfish	21 May 2025	<0.0005	<0.0005	**0.0004**	<0.0005	**0.0056**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA108_250521	BIOAFA108	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	**0.0009**	<0.0005	<0.0003	<0.0005	**0.0044**	<0.0005	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA109_250521	BIOAFA109	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	<0.0003	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA003_241126	BIOAFA003	Port Phillip Bay Inshore	Prey Fish	Flounder	26 Nov 2024	<0.005	<0.005	**0.23**	**0.035**	**0.88**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_QC106_241126	BIOAFA020	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.005	<0.005	<0.005	**0.024**	<0.005	<0.005	<0.005	<0.005	<0.005	<

Point Cook HHERA

Table 4 - Biota Sample Identifiers and Analytical Data

						PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
						4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Avian diet)																	0.0082		
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Mammalian)																	0.0031		
Field ID	**Location Code**	**Area**	**Ecological Food Group**	**Common Name**	**Date**														
0932_BIOAFL001_241126	BIOAFL001	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0031**
0932_BIOAFL004_241126	BIOAFL004	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0009**
0932_BIOAFL006_241126	BIOAFL006	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL007_241126	BIOAFL007	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL009_241127	BIOAFL009	Port Phillip Bay Foreshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL011_241127	BIOAFL011	Port Phillip Bay Foreshore	Aquatic Vegetation	Caulerpa green algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL013_241127	BIOAFL013	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL015_241127	BIOAFL015	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL017_241127	BIOAFL017	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL020_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL021_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	**0.0008**	**0.0008**
0932_BIOAFL023_250519	BIOAFL023	Port Phillip Bay Foreshore	Aquatic Vegetation	Caulerpa	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	**0.0014**	**0.0014**
0932_BIOAFL025_250519	BIOAFL025	Port Phillip Bay Foreshore	Aquatic Vegetation	Red Foliose Algae	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.0226**
0932_BIOAFL027_250520	BIOAFL027	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	**0.0007**	**0.0007**
0932_BIOAFL029_250520	BIOAFL029	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFL031_250520	BIOAFL031	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	**0.0012**	**0.0012**
0932_BIOAFL033_250520	BIOAFL033	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	**0.0013**	**0.0013**
0932_BIOAFL035_250521	BIOAFL035	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.007**	**0.0074**	**0.0074**
0932_BIOAFL037_250521	BIOAFL037	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0051**	**0.0051**	**0.0051**
0932_BIOAFL039_250521	BIOAFL039	Port Phillip Bay Foreshore	Aquatic Vegetation	Sea Lettuce	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0021**
0932_QC103_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC108_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	**0.0008**	**0.0008**
0932_QC203_241128	BIOAFL020	Port Phillip Bay Foreshore	Aquatic Vegetation	Codium green algae	28 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.01**	-	**0.01**
0932_QC208_250519	BIOAFL021	Port Phillip Bay Foreshore	Aquatic Vegetation	Seagrass	19 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.001**	-	**0.001**
0932_BIOAFL002_241126	BIOAFL002	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0158**	**0.0158**	**0.0158**
0932_BIOAFL003_241126	BIOAFL003	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	**0.0007**	**0.0007**
0932_BIOAFL005_241126	BIOAFL005	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001**	**0.001**	**0.001**
0932_BIOAFL008_241126	BIOAFL008	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL010_241127	BIOAFL010	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL012_241127	BIOAFL012	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL014_241127	BIOAFL014	Port Phillip Bay Inshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL016_241127	BIOAFL016	Port Phillip Bay Inshore	Aquatic Vegetation	Sea Lettuce	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL018_241127	BIOAFL018	Port Phillip Bay Inshore	Aquatic Vegetation	Filamentous Red Algae	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL019_241128	BIOAFL019	Port Phillip Bay Inshore	Aquatic Vegetation	Foliose Red Algae	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFL022_250519	BIOAFL022	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0028**
0932_BIOAFL024_250519	BIOAFL024	Port Phillip Bay Inshore	Aquatic Vegetation	Sea Lettuce	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0022**	**0.0022**	**0.0022**
0932_BIOAFL026_250519	BIOAFL026	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0011**	**0.0011**	**0.0011**
0932_BIOAFL028_250520	BIOAFL028	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.032**	**0.0335**	**0.0395**
0932_BIOAFL030_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	**0.0012**	**0.0132**
0932_BIOAFL032_250520	BIOAFL032	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	**0.0014**	**0.0014**
0932_BIOAFL034_250520	BIOAFL034	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0016**	**0.0016**	**0.0016**
0932_BIOAFL036_250521	BIOAFL036	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025	<0.0005	**0.0011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0046**	**0.006**	**0.006**
0932_BIOAFL038_250521	BIOAFL038	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0095**	**0.011**	**0.0131**
0932_BIOAFL040_250521	BIOAFL040	Port Phillip Bay Inshore	Aquatic Vegetation	Seagrass	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0034**	**0.0034**	**0.0034**
0932_QC104_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0105**
0932_QC204_250520	BIOAFL030	Port Phillip Bay Inshore	Aquatic Vegetation	Red Foliose Algae	20 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.002**		**0.002**
0932_BIOAFA001_241126	BIOAFA001	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0057**	**0.0057**	**0.0071**
0932_BIOAFA006_241126	BIOAFA006	Port Phillip Bay Foreshore	Benthic Invertebrate	Snails	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0023**	**0.0023**	**0.0023**
0932_BIOAFA015_241126	BIOAFA015	Port Phillip Bay Foreshore	Benthic Invertebrate	Snails	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0072**	**0.0072**	**0.0072**
0932_BIOAFA017_241126	BIOAFA017	Port Phillip Bay Foreshore	Benthic Invertebrate	Shore Crab	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0051**	<0.01	<0.05
0932_BIOAFA022_241127	BIOAFA022	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA027_241127	BIOAFA027	Port Phillip Bay Foreshore	Benthic Invertebrate	Pipi	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA029_241127	BIOAFA029	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA035_241127	BIOAFA035	Port Phillip Bay Foreshore	Benthic Invertebrate	Common Limpet	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA036_241127	BIOAFA036	Port Phillip Bay Foreshore	Benthic Invertebrate	Shore Crab	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.007**	<0.01	<0.05
0932_BIOAFA042_241128	BIOAFA042	Port Phillip Bay Foreshore	Benthic Invertebrate	Pacific Oyster	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA043_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0073**	**0.0094**	**0.0112**
0932_BIOAFA047_250519	BIOAFA047	Port Phillip Bay Foreshore	Benthic Invertebrate	Pipi	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	**0.0013**	**0.0013**
0932_BIOAFA048_250519	BIOAFA048	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0087**	**0.0122**	**0.0154**
0932_BIOAFA052_250519	BIOAFA052	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.49**	**0.583**	**0.6093**
0932_BIOAFA058_250520	BIOAFA058	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0017**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.199**	**0.2219**	**0.2363**
0932_BIOAFA064_250520	BIOAFA064	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0127**	**0.0164**	**0.0175**
0932_BIOAFA073_250520	BIOAFA073	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0215**	**0.039**	**0.0403**
0932_BIOAFA078_250520	BIOAFA078	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0147**	**0.0153**	**0.0168**
0932_BIOAFA086_250521	BIOAFA086	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0179**	**0.0239**	**0.0245**
0932_BIOAFA091_250521	BIOAFA091	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0125**	**0.0125**	**0.0138**
0932_BIOAFA102_250521	BIOAFA102	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0156**	**0.0156**	**0.0164**
0932_QC104_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0069**	**0.0092**	**0.0102**
0932_QC204_250519	BIOAFA043	Port Phillip Bay Foreshore	Benthic Invertebrate	Beach Worms	19 May 2025	<0.002	<0.002	<0.002	<0.002	<0.01	<0.01	<0.004	<0.02	<0.01	<0.004	<0.1	**0.007**		**0.007**
0932_BIOAFA002_241126	BIOAFA002	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0029**	**0.0029**	**0.0035**
0932_BIOAFA007_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	**0.0005**	<0.0005	**0.0079**	**0.0079**	**0.0137**
0932_BIOAFA014_241126	BIOAFA014	Port Phillip Bay Inshore	Benthic Invertebrate	Sand Shrimp	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0073**	**0.0073**	**0.008**
0932_BIOAFA018_241126	BIOAFA018	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA023_241127	BIOAFA023	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA026_241127	BIOAFA026	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA028_241127	BIOAFA028	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA031_241127	BIOAFA031	Port Phillip Bay Inshore	Benthic Invertebrate	Sand Shrimp	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0056**	<0.01	<0.05
0932_BIOAFA032_241127	BIOAFA032	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA038_241127	BIOAFA038	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.016**	**0.016**	<0.05
0932_BIOAFA040_241128	BIOAFA040	Port Phillip Bay Inshore	Benthic Invertebrate	Sand Shrimp	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.125**	**0.125**	**0.125**
0932_BIOAFA041_241128	BIOAFA041	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	28 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA044_250519	BIOAFA044	Port Phillip Bay Inshore	Benthic Invertebrate	Prawn	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0074**
0932_BIOAFA045_250519	BIOAFA045	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.0015**
0932_BIOAFA049_250519	BIOAFA049	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	**0.0008**	**0.0014**
0932_BIOAFA054_250519	BIOAFA054	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.0006**
0932_BIOAFA055_250519	BIOAFA055	Port Phillip Bay Inshore	Benthic Invertebrate	Burrowing Shrimp	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0115**	**0.0115**	**0.0168**
0932_BIOAFA057_250519	BIOAFA057	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0016**
0932_BIOAFA060_250520	BIOAFA060	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001**	**0.001**	**0.0016**

Point Cook HHERA

Table 4 - Biota Sample Identifiers and Analytical Data

						PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
						4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Avian diet)																	0.0082		
PFAS NEMP 2025 Ecological direct exposure for wildlife diet (Mammalian)																	0.0031		
Field ID	**Location Code**	**Area**	**Ecological Food Group**	**Common Name**	**Date**														
0932_BIOAFA061_250520	BIOAFA061	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001**	**0.001**	**0.0016**
0932_BIOAFA062_250520	BIOAFA062	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	**0.0014**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0175**	**0.0175**	**0.0204**
0932_BIOAFA063_250520	BIOAFA063	Port Phillip Bay Inshore	Benthic Invertebrate	Shore Crab	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0118**	**0.0125**	**0.0137**
0932_BIOAFA065_250520	BIOAFA065	Port Phillip Bay Inshore	Benthic Invertebrate	Dumpling Squid	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0079**	**0.0084**	**0.0091**
0932_BIOAFA068_250520	BIOAFA068	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA070_250520	BIOAFA070	Port Phillip Bay Inshore	Benthic Invertebrate	Shore Crab	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.027**	**0.0292**	**0.0307**
0932_BIOAFA072_250520	BIOAFA072	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	**0.003**	**0.0047**	**0.0065**
0932_BIOAFA076_250520	BIOAFA076	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.1406**
0932_BIOAFA077_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0025**	**0.0025**	**0.0025**
0932_BIOAFA079_250520	BIOAFA079	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0041**	**0.005**	**0.0056**
0932_BIOAFA082_250520	BIOAFA082	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0011**	**0.0011**	**0.0024**
0932_BIOAFA087_250521	BIOAFA087	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0066**	**0.0066**	**0.0082**
0932_BIOAFA088_250521	BIOAFA088	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	<0.0005	**0.016**	**0.0008**	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0024**	**0.0206**	**0.0213**
0932_BIOAFA092_250521	BIOAFA092	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0016**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0068**	**0.0068**	**0.0084**
0932_BIOAFA095_250521	BIOAFA095	Port Phillip Bay Inshore	Benthic Invertebrate	Eleven-arm Seastar	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.02**	**0.0215**	**0.0263**
0932_BIOAFA097_250521	BIOAFA097	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0052**	**0.0062**	**0.0071**
0932_BIOAFA100_250521	BIOAFA100	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0037**	**0.0037**	**0.0049**
0932_BIOAFA103_250521	BIOAFA103	Port Phillip Bay Inshore	Benthic Invertebrate	Cushion sea star	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0039**	**0.0039**	**0.0039**
0932_BIOAFA104_250521	BIOAFA104	Port Phillip Bay Inshore	Benthic Invertebrate	Eleven-arm Seastar	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.011**	**0.0127**	**0.0218**
0932_BIOAFA105_250521	BIOAFA105	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0045**	**0.0045**	**0.0052**
0932_BIOAFA107_250521	BIOAFA107	Port Phillip Bay Inshore	Benthic Invertebrate	Sea Centipede	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0021**
0932_BIOAFA110_250521	BIOAFA110	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussels	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.0012**
0932_QC104_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0078**	**0.0078**	**0.0108**
0932_QC104_241127	BIOAFA032	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_QC106_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	**0.0026**	**0.0026**	**0.0033**
0932_QC107_250519	BIOAFA054	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	**0.0005**	**0.0005**
0932_QC204_241126	BIOAFA007	Port Phillip Bay Inshore	Benthic Invertebrate	11 Arm Seastar	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.011**	-	**0.014**
0932_QC204_241127	BIOAFA032	Port Phillip Bay Inshore	Benthic Invertebrate	Blue Mussel	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.02	<0.02	<0.01	<0.05	<0.02	<0.01	<0.2	<0.001	-	<0.001
0932_QC206_250520	BIOAFA077	Port Phillip Bay Inshore	Benthic Invertebrate	Red-handed Shrimp	20 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.002**	-	**0.002**
0932_QC207_250519	BIOAFA054	Port Phillip Bay Inshore	Benthic Invertebrate	Pacific Oyster	19 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	<0.001	-	<0.001
0932_BIOAFA085_250520	BIOAFA085	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0227**	**0.0241**	**0.0248**
0932_BIOAFA012_241126	BIOAFA012	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_BIOAFA019_241126	BIOAFA019	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05	<0.005	<0.01	<0.05
0932_BIOAFA034_241127	BIOAFA034	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05	<0.005	<0.01	<0.05
0932_BIOAFA099_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0104**	**0.0104**	**0.0104**
0932_QC104_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0104**	**0.0107**	**0.0107**
0932_QC204_250521	BIOAFA099	Port Phillip Bay Inshore	Pelagic Invertebrate	Southern Calamari	21 May 2025	<0.002	<0.002	<0.002	<0.002	<0.01	<0.01	<0.004	<0.02	<0.01	<0.004	<0.1	**0.015**	-	**0.015**
0932_QC208_241126	BIOAFA019	Port Phillip Bay Inshore	Pelagic Invertebrate	Jellyfish	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	-	-	<0.001
0932_BIOAFA051_250519	BIOAFA051	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0256**	**0.0256**	**0.0261**
0932_BIOAFA071_250520	BIOAFA071	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0207**	**0.0207**	**0.0207**
0932_BIOAFA080_250520	BIOAFA080	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0364**	**0.0367**	**0.0376**
0932_BIOAFA081_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0664**	**0.0667**	**0.0722**
0932_BIOAFA094_250521	BIOAFA094	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.057**	**0.057**	**0.0595**
0932_BIOAFA098_250521	BIOAFA098	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.13**	**0.1307**	**0.1353**
0932_QC105_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	**0.0735**	**0.0738**	**0.0798**
0932_QC205_250520	BIOAFA081	Port Phillip Bay Inshore	Predator Fish (fillet)**	Flounder (Adult)	20 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.075**	-	**0.078**
0932_BIOAFA020_241126	BIOAFA020	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.021**	<0.025	<0.05
0932_BIOAFA009_241126	BIOAFA009	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.025**	**0.025**	<0.05
0932_BIOAFA005_241126	BIOAFA005	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.086**	**0.086**	**0.086**
0932_BIOAFA016_241126	BIOAFA016	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA021_241126	BIOAFA021	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0085**	<0.01	<0.05
0932_BIOAFA024_241127	BIOAFA024	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0096**	<0.01	<0.05
0932_BIOAFA030_241127	BIOAFA030	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.019**	**0.019**	<0.05
0932_BIOAFA033_241127	BIOAFA033	Port Phillip Bay Inshore	Prey Fish	Flounder	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.06**	**0.06**	**0.06**
0932_BIOAFA037_241127	BIOAFA037	Port Phillip Bay Inshore	Prey Fish	Gobies	27 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_BIOAFA046_250519	BIOAFA046	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0062**	**0.0062**	**0.0072**
0932_BIOAFA050_250519	BIOAFA050	Port Phillip Bay Inshore	Prey Fish	Flounder	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.021**	**0.021**	**0.0215**
0932_BIOAFA053_250519	BIOAFA053	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0095**	**0.0095**	**0.0102**
0932_BIOAFA056_250519	BIOAFA056	Port Phillip Bay Inshore	Prey Fish	Flathead	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0206**	**0.0206**	**0.022**
0932_BIOAFA059_250520	BIOAFA059	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0043**	**0.0043**	**0.0043**
0932_BIOAFA066_250520	BIOAFA066	Port Phillip Bay Inshore	Prey Fish	Flathead	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.011**	**0.011**	**0.0129**
0932_BIOAFA067_250520	BIOAFA067	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0042**	**0.0042**	**0.0042**
0932_BIOAFA069_250520	BIOAFA069	Port Phillip Bay Inshore	Prey Fish	Flounder	20 May 2025	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.01**	**0.0106**	**0.0106**
0932_BIOAFA074_250520	BIOAFA074	Port Phillip Bay Inshore	Prey Fish	Mullet	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.002**	**0.002**	**0.002**
0932_BIOAFA075_250520	BIOAFA075	Port Phillip Bay Inshore	Prey Fish	Hardyheads	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0072**	**0.0072**	**0.0079**
0932_BIOAFA083_250520	BIOAFA083	Port Phillip Bay Inshore	Prey Fish	Garfish	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0125**	**0.0125**	**0.0131**
0932_BIOAFA084_250520	BIOAFA084	Port Phillip Bay Inshore	Prey Fish	Mullet	20 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.004**	**0.004**	**0.004**
0932_BIOAFA089_250521	BIOAFA089	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0017**	**0.0017**	**0.0017**
0932_BIOAFA090_250521	BIOAFA090	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.002**	**0.002**	**0.002**
0932_BIOAFA093_250521	BIOAFA093	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0042**	**0.0051**	**0.0057**
0932_BIOAFA096_250521	BIOAFA096	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0094**	**0.0094**	**0.0106**
0932_BIOAFA101_250521	BIOAFA101	Port Phillip Bay Inshore	Prey Fish	Weedfish	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.011**	**0.0126**	**0.0126**
0932_BIOAFA106_250521	BIOAFA106	Port Phillip Bay Inshore	Prey Fish	Weedfish	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.006**	**0.006**	**0.006**
0932_BIOAFA108_250521	BIOAFA108	Port Phillip Bay Inshore	Prey Fish	Hardyheads	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0044**	**0.0062**	**0.0068**
0932_BIOAFA109_250521	BIOAFA109	Port Phillip Bay Inshore	Prey Fish	Mullet	21 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	**0.0012**	**0.0012**
0932_BIOAFA003_241126	BIOAFA003	Port Phillip Bay Inshore	Prey Fish	Flounder	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.11**	**1.11**	**1.145**
0932_QC106_241126	BIOAFA020	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.024**	**0.024**	<0.05
0932_QC206_241126	BIOAFA020	Port Phillip Bay Inshore	Prey Fish	Toadfish (Juvenile)	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.029**	-	**0.029**
0932_QC105_241126	BIOAFA021	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0058**	<0.01	<0.05
0932_QC105_250519	BIOAFA050	Port Phillip Bay Inshore	Prey Fish	Flounder	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0208**	**0.0208**	**0.0213**
0932_QC106_250519	BIOAFA046	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0041**	**0.0041**	**0.0048**
0932_QC205_241126	BIOAFA021	Port Phillip Bay Inshore	Prey Fish	Gobies	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.015**	-	**0.015**
0932_QC205_250519	BIOAFA050	Port Phillip Bay Inshore	Prey Fish	Flounder	19 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.018**	-	**0.018**
0932_QC206_250519	BIOAFA046	Port Phillip Bay Inshore	Prey Fish	Mullet	19 May 2025	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**0.006**	-	**0.006**
0932_QC107_241126	BIOAFA003	Port Phillip Bay Inshore	Prey Fish	Flounder	26 Nov 2024	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.91**	**0.91**	**0.954**
0932_QC207_241126	BIOAFA003	Port Phillip Bay Inshore	Prey Fish	Flounder	26 Nov 2024	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.002	<0.01	<0.005	<0.002	<0.05	**2.4**	-	**2.5**

Point Cook ERA
Table 5 – Sediment Analytical Results

				PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
				Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Field ID	**Location Code**	**Investigation Area**	**Date**																		
SD216_181212	SD216	On-base drainage line	12 Dec 2018	<0.005	<0.005	<0.005	<0.005	**0.0081**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD217_181212	SD217	On-base drainage line	12 Dec 2018	<0.005	<0.005	**0.018**	<0.005	**0.41**	-	**0.0068**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD218_181212	SD218	On-base drainage line	12 Dec 2018	<0.005	<0.005	**0.0051**	<0.005	**0.19**	-	**0.0061**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD219_181212	SD219	On-base drainage line	12 Dec 2018	<0.005	<0.005	<0.005	<0.005	**0.0072**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD220_181211	SD220	On-base drainage line	11 Dec 2018	<0.005	<0.005	**0.018**	<0.005	**0.36**	-	<0.005	<0.005	<0.005	**0.0057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD221_181212	SD221	On-base drainage line	12 Dec 2018	<0.005	<0.005	<0.005	<0.005	**0.028**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD222_181211	SD222	On-base drainage line	11 Dec 2018	<0.005	<0.005	**0.02**	<0.005	**0.13**	-	<0.005	<0.005	<0.005	**0.0073**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD223_181211	SD223	On-base drainage line	11 Dec 2018	<0.005	<0.005	**0.018**	<0.005	**0.14**	-	<0.005	<0.005	<0.005	**0.013**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD224_181212	SD224	On-base drainage line	12 Dec 2018	<0.005	<0.005	**0.024**	<0.005	**0.26**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD225_181212	SD225	On-base drainage line	12 Dec 2018	<0.005	<0.005	**0.0053**	<0.005	**0.071**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD226_181212	SD226	On-base drainage line	12 Dec 2018	<0.005	<0.005	**0.0070**	<0.005	**0.08**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD231_181210	SD231	On-base drainage line	10 Dec 2018	**0.017**	**0.023**	**0.23**	**0.016**	**1**	-	<0.005	<0.005	<0.005	**0.026**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD233_181210	SD233	On-base drainage line	10 Dec 2018	<0.005	<0.005	<0.005	<0.005	**0.031**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD234_181210	SD234	On-base drainage line	10 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD235_181220	SD235	On-base drainage line	20 Dec 2018	<0.005	<0.005	**0.0052**	<0.005	**0.027**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD237_181220	SD237	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD239_181220	SD239	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	**0.0064**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD241_181220	SD241	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD242_181220	SD242	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD243_181220	SD243	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SD244_181220	SD244	On-base drainage line	20 Dec 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_SD300_250409	SD300	On-base drainage line	08 Apr 2025	<0.005	<0.005	**0.0084**	<0.005	**0.07**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS185_180321	SS185	On-base drainage line	21 Mar 2018	<0.005	<0.005	<0.005	<0.005	**0.014**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS186_180321	SS186	On-base drainage line	21 Mar 2018	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_SD285_0.2_241203	SD285	Port Phillip Bay - Foreshore	03 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD285_250519	SD285	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD286_0.3_241203	SD286	Port Phillip Bay - Foreshore	03 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD286_250519	SD286	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD287_0.2_241204	SD287	Port Phillip Bay - Foreshore	04 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0005**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD287_250519	SD287	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD288_241205	SD288	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0021**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD288_250520	SD288	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0009**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD289_0.1_241205	SD289	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0008**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD289_250520	SD289	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0001	**0.0001**	<0.0001	**0.0007**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD290_0.2_241205	SD290	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD290_250520	SD290	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0004**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD291_0.2_241206	SD291	Port Phillip Bay - Foreshore	06 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0010**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD291_250521	SD291	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0004**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD292_241206	SD292	Port Phillip Bay - Foreshore	06 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD292_250520	SD292	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.0001**
0932_SD293_0.2_241209	SD293	Port Phillip Bay - Foreshore	09 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0006**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD293_250521	SD293	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0001	**0.0002**	<0.0001	**0.0032**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD294_0.3_241129	SD294	Port Phillip Bay - Foreshore	29 Nov 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0018**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD294_250521	SD294	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0043**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
SS178_180327	SS178	Port Phillip Bay - Foreshore	27 Mar 2018	<0.005	<0.005	<0.005	<0.005	**0.018**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS183_180327	SS183	Port Phillip Bay - Foreshore	27 Mar 2018	0.0058	0.0077	**0.076**	<0.005	**0.057**	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0932_SD001_201110	SD001	Port Phillip Bay - Inshore	10 Nov 2020	<0.0002	<0.0002	<0.0002	<0.0002	**0.0021**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SD002_201110	SD002	Port Phillip Bay - Inshore	10 Nov 2020	<0.0002	<0.0002	<0.0002	<0.0002	**0.0006**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SD003_201110	SD003	Port Phillip Bay - Inshore	10 Nov 2020	<0.0002	<0.0002	<0.0002	<0.0002	**0.0209**	-	<0.0002	<0.001	<0.0002	**0.0006**	<0.0002	**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SD004_201110	SD004	Port Phillip Bay - Inshore	10 Nov 2020	<0.0002	<0.0002	**0.0009**	<0.0002	**0.0072**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SD005_201110	SD005	Port Phillip Bay - Inshore	10 Nov 2020	<0.0002	<0.0002	**0.0013**	<0.0002	**0.0029**	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005
0932_SD275_0.7_241209	SD275	Port Phillip Bay - Inshore	09 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD275_250519	SD275	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD276_0.5_241127	SD276	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD276_250519	SD276	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD277_0.5_241204	SD277	Port Phillip Bay - Inshore	04 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0018**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD277_250519	SD277	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0007**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD278_0.3_241127	SD278	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0001	**0.0002**	<0.0001	**0.0019**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD278_250520	SD278	Port Phillip Bay - Inshore	20 May 2025	**0.0001**	<0.0001	**0.0023**	<0.0001	**0.0061**	<0.0001	<0.0001	<0.0005	<0.0001	**0.0001**	<0.0001	**0.0001**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD279_0.3_241127	SD279	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0009**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD279_250520	SD279	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD280_0.4_241126	SD280	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0001	<0.0001	<0.0001	**0.0010**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	**0.0001**	<0.0001	**0.0001**	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD280_0.3_241205	SD280	Port Phillip Bay - Inshore	05 Dec 2024	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD280_250520	SD280	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD281_0.4_241126	SD281	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD281_250521	SD281	Port Phillip Bay - Inshore	21 May 2025	**0.0001**	<0.0001	**0.0003**	<0.0001	**0.0028**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	**0.0002**	**0.0001**	**0.0003**	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD282_1.0_241126	SD282	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0001	**0.0003**	<0.0001	**0.0020**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0932_SD282_250520	SD282	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0001	**0.0002**	<0.0001	**0.0012**	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Point Cook ERA
Table 5 – Sediment Analytical Results

				PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
				Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Field ID	**Location Code**	**Investigation Area**	**Date**																		
0932_SD283_0.5_241126	SD283	Port Phillip Bay - Inshore	26 Nov 2024	*<0.0001*	*<0.0001*	**0.0049**	**0.0009**	**0.12**	*<0.0001*	*<0.0001*	*<0.0005*	*<0.0001*	**0.0002**	*<0.0001*	**0.0006**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD283_250521	SD283	Port Phillip Bay - Inshore	21 May 2025	*<0.0001*	*<0.0001*	**0.0004**	*<0.0001*	**0.0018**	*<0.0001*	*<0.0001*	*<0.0005*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD284_0.5_241128	SD284	Port Phillip Bay - Inshore	28 Nov 2024	*<0.0001*	*<0.0001*	**0.0001**	*<0.0001*	**0.0032**	*<0.0001*	*<0.0001*	*<0.0005*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD284_250521	SD284	Port Phillip Bay - Inshore	21 May 2025	*<0.0001*	*<0.0001*	**0.0004**	*<0.0001*	**0.012**	*<0.0001*	*<0.0001*	*<0.0005*	*<0.0001*	*<0.0001*	*<0.0001*	**0.0002**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD006_201109	SD006	RAAF Lake	09 Nov 2020	**0.0058**	**0.0153**	**0.311**	**0.106**	**1.95**	-	**0.0019**	**0.004**	**0.0042**	**0.0304**	**0.0055**	**0.0460**	**0.0014**	**0.0002**	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0010*
0932_SD007_201109	SD007	RAAF Lake	09 Nov 2020	**0.0174**	**0.0490**	**0.308**	**0.0571**	**1.82**	-	**0.0009**	**0.008**	**0.0114**	**0.113**	**0.0104**	**0.0217**	**0.0009**	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0010*
0932_SD008_201109	SD008	RAAF Lake	09 Nov 2020	**0.0042**	**0.0075**	**0.144**	**0.0350**	**0.454**	-	*<0.0002*	**0.002**	**0.0027**	**0.0179**	**0.0020**	**0.0147**	**0.0004**	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*
0932_SD009_201109	SD009	RAAF Lake	09 Nov 2020	**0.0052**	**0.0098**	**0.148**	**0.0256**	**0.878**	-	**0.0009**	**0.002**	**0.0037**	**0.0228**	**0.0029**	**0.0130**	**0.0003**	*<0.0002*	*<0.0004*	*<0.0002*	*<0.0002*	*<0.0010*
0932_SD010_201109	SD010	RAAF Lake	09 Nov 2020	**0.0079**	**0.0138**	**0.192**	**0.0352**	**1.29**	-	**0.0036**	**0.003**	**0.0053**	**0.0325**	**0.0036**	**0.0187**	**0.0008**	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0010*
SD227_181213	SD227	RAAF Lake	13 Dec 2018	**0.0066**	**0.0057**	**0.074**	**0.016**	**1.6**	-	**0.041**	*<0.005*	*<0.005*	**0.017**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
0932_SD227_241122	SD227	RAAF Lake	22 Nov 2024	**0.014**	**0.039**	**0.2**	**0.0093**	**2.3**	**0.0071**	**0.0078**	**0.0068**	**0.012**	**0.08**	**0.0073**	**0.0082**	**0.0002**	**0.0002**	**0.0003**	**0.0002**	*<0.0001*	*<0.0001*
0932_SD227_250522	SD227	RAAF Lake	22 May 2025	**0.052**	**0.068**	**0.41**	**0.039**	**2.2**	*<0.002*	*<0.002*	**0.013**	**0.025**	**0.17**	**0.014**	**0.022**	**0.0009**	**0.0002**	**0.0002**	**0.0002**	*<0.0001*	*<0.0001*
SD228_181213	SD228	RAAF Lake	13 Dec 2018	**0.0065**	**0.0070**	**0.058**	*<0.005*	**0.28**	-	*<0.005*	*<0.005*	**0.0063**	**0.039**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
0932_SD228_241122	SD228	RAAF Lake	22 Nov 2024	**0.023**	**0.032**	**0.18**	**0.02**	**0.76**	**0.0033**	**0.0007**	**0.0097**	**0.017**	**0.092**	**0.0052**	**0.0082**	**0.0002**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD228_250522	SD228	RAAF Lake	22 May 2025	**0.064**	**0.089**	**0.58**	**0.045**	**3.3**	**0.014**	**0.014**	**0.013**	**0.039**	**0.3**	**0.016**	**0.021**	**0.0005**	**0.0002**	**0.0002**	**0.0003**	**0.0001**	**0.0001**
SD229_181213	SD229	RAAF Lake	13 Dec 2018	**0.082**	**0.26**	**1.1**	**0.08**	**4.5**	-	**0.028**	**0.019**	**0.057**	**0.38**	**0.021**	**0.046**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
0932_SD229_241122	SD229	RAAF Lake	22 Nov 2024	**0.015**	**0.011**	**0.043**	**0.0028**	**0.094**	**0.0003**	*<0.0001*	**0.0063**	**0.011**	**0.073**	**0.0018**	**0.0024**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD229_250522	SD229	RAAF Lake	22 May 2025	**0.0096**	**0.014**	**0.057**	**0.0017**	**0.083**	*<0.0001*	*<0.0001*	**0.0044**	**0.0052**	**0.054**	**0.0036**	**0.0027**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
SD230_181213	SD230	RAAF Lake	13 Dec 2018	**0.045**	**0.057**	**0.48**	**0.034**	**3.2**	-	**0.037**	**0.018**	**0.039**	**0.18**	**0.0095**	**0.024**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
0932_SD295_241125	SD295	RAAF Lake	25 Nov 2024	**0.19**	**1**	**3.7**	**0.088**	**2.4**	**0.017**	**0.0013**	**0.015**	**0.097**	**2.7**	**0.23**	**0.12**	**0.0011**	**0.0002**	**0.0002**	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD295_250522	SD295	RAAF Lake	22 May 2025	**0.0015**	**0.0020**	**0.051**	**0.016**	**0.89**	*<0.0001*	*<0.0001*	**0.0008**	**0.0009**	**0.011**	**0.0010**	**0.0072**	**0.0007**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD296_241125	SD296	RAAF Lake	25 Nov 2024	**0.013**	**0.14**	**4.2**	**0.37**	**9.7**	**0.014**	**0.0033**	**0.0025**	**0.0082**	**0.17**	**0.071**	**0.32**	**0.0051**	*<0.001875*	**0.0002**	*<0.0001*	*<0.0001*	*<0.0001*
0932_SD296_250522	SD296	RAAF Lake	22 May 2025	**0.0057**	**0.0088**	**0.099**	**0.0082**	**0.3**	*<0.0001*	*<0.0001*	**0.0041**	**0.0045**	**0.049**	**0.0051**	**0.014**	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*
SS149_180326	SS149	RAAF Lake	26 Mar 2018	*0.011*	*0.026*	**0.38**	*0.072*	**2**	-	*<0.005*	**0.0053**	**0.012**	**0.066**	**0.0076**	**0.031**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS150_180326	SS150	RAAF Lake	26 Mar 2018	*0.013*	*0.039*	**0.77**	*0.12*	**3**	-	*<0.005*	**0.0051**	**0.012**	**0.08**	**0.011**	**0.054**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS151_180326	SS151	RAAF Lake	26 Mar 2018	*0.016*	*0.035*	**0.35**	*0.026*	**1**	-	*<0.005*	**0.0068**	**0.015**	**0.087**	**0.0081**	**0.019**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS152_180326	SS152	RAAF Lake	26 Mar 2018	*0.033*	*0.085*	**1.2**	*0.13*	**2.7**	-	*<0.005*	**0.0093**	**0.023**	**0.2**	**0.023**	**0.078**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS153_180326	SS153	RAAF Lake	26 Mar 2018	*0.012*	*0.035*	**0.35**	*0.033*	**0.92**	-	*<0.005*	<0.005	**0.0097**	**0.072**	**0.0078**	**0.017**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS154_180326	SS154	RAAF Lake	26 Mar 2018	*0.04*	*0.12*	**0.69**	*0.032*	**0.96**	-	*<0.005*	**0.011**	**0.024**	**0.25**	**0.02**	**0.025**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS156_180326	SS156	RAAF Lake	26 Mar 2018	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.031**	-	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS158_180326	SS158	RAAF Lake	26 Mar 2018	*0.0091*	*0.038*	**0.55**	*0.11*	**10**	-	*<0.005*	*<0.005*	*<0.005*	**0.05**	**0.0091**	**0.026**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*
SS160_180326	SS160	RAAF Lake	26 Mar 2018	*<0.005*	*0.0058*	**0.22**	*0.072*	**3.6**	-	*<0.005*	*<0.005*	*<0.005*	**0.012**	*<0.005*	**0.02**	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*

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Table 5 – Sediment Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
SD216_181212	SD216	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0081**	<0.01	<0.05
SD217_181212	SD217	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	**0.012**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.428**	**0.428**	**0.4468**
SD218_181212	SD218	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	**0.0072**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.1951**	**0.1951**	**0.2084**
SD219_181212	SD219	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0072**	<0.01	<0.05
SD220_181211	SD220	On-base drainage line	11 Dec 2018	<0.005	<0.01	<0.005	<0.005	**0.0074**	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.378**	**0.3837**	**0.3911**
SD221_181212	SD221	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.028**	**0.028**	<0.05
SD222_181211	SD222	On-base drainage line	11 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.15**	**0.1573**	**0.1573**
SD223_181211	SD223	On-base drainage line	11 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.158**	**0.171**	**0.171**
SD224_181212	SD224	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.284**	**0.284**	**0.284**
SD225_181212	SD225	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0763**	**0.0763**	**0.0763**
SD226_181212	SD226	On-base drainage line	12 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.087**	**0.087**	**0.087**
SD231_181210	SD231	On-base drainage line	10 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.23**	**1.273**	**1.312**
SD233_181210	SD233	On-base drainage line	10 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.031**	**0.031**	<0.05
SD234_181210	SD234	On-base drainage line	10 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SD235_181220	SD235	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0322**	**0.0322**	<0.05
SD237_181220	SD237	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SD239_181220	SD239	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0064**	<0.01	<0.05
SD241_181220	SD241	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SD242_181220	SD242	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SD243_181220	SD243	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
SD244_181220	SD244	On-base drainage line	20 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_SD300_250409	SD300	On-base drainage line	08 Apr 2025	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.0784**	**0.0784**	**0.0784**
SS185_180321	SS185	On-base drainage line	21 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.014**	**0.014**	<0.05
SS186_180321	SS186	On-base drainage line	21 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.05
0932_SD285_0.2_241203	SD285	Port Phillip Bay - Foreshore	03 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD285_250519	SD285	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005
0932_SD286_0.3_241203	SD286	Port Phillip Bay - Foreshore	03 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005
0932_SD286_250519	SD286	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD287_0.2_241204	SD287	Port Phillip Bay - Foreshore	04 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0005**	**0.0005**	**0.0005**
0932_SD287_250519	SD287	Port Phillip Bay - Foreshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD288_241205	SD288	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0021**
0932_SD288_250520	SD288	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0009**
0932_SD289_0.1_241205	SD289	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	**0.0008**	**0.0008**
0932_SD289_250520	SD289	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**	**0.0008**	**0.0008**
0932_SD290_0.2_241205	SD290	Port Phillip Bay - Foreshore	05 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005
0932_SD290_250520	SD290	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0004**	<0.0005	<0.0005
0932_SD291_0.2_241206	SD291	Port Phillip Bay - Foreshore	06 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001**	**0.001**	**0.001**
0932_SD291_250521	SD291	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0004**	<0.0005	<0.0005
0932_SD292_241206	SD292	Port Phillip Bay - Foreshore	06 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005
0932_SD292_250520	SD292	Port Phillip Bay - Foreshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD293_0.2_241209	SD293	Port Phillip Bay - Foreshore	09 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	**0.0006**	**0.0006**
0932_SD293_250521	SD293	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0034**	**0.0034**	**0.0034**
0932_SD294_0.3_241129	SD294	Port Phillip Bay - Foreshore	29 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0018**	**0.0018**	**0.0018**
0932_SD294_250521	SD294	Port Phillip Bay - Foreshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0043**	**0.0043**	**0.0043**
SS178_180327	SS178	Port Phillip Bay - Foreshore	27 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.018**	**0.018**	<0.05
SS183_180327	SS183	Port Phillip Bay - Foreshore	27 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.133**	**0.1388**	**0.1465**
0932_SD001_201110	SD001	Port Phillip Bay - Inshore	10 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0021**	**0.0023**	**0.0023**
0932_SD002_201110	SD002	Port Phillip Bay - Inshore	10 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0006**	**0.0006**	**0.0006**
0932_SD003_201110	SD003	Port Phillip Bay - Inshore	10 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0209**	**0.0220**	**0.0220**
0932_SD004_201110	SD004	Port Phillip Bay - Inshore	10 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0081**	**0.0081**	**0.0081**
0932_SD005_201110	SD005	Port Phillip Bay - Inshore	10 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0042**	**0.0042**	**0.0042**
0932_SD275_0.7_241209	SD275	Port Phillip Bay - Inshore	09 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005
0932_SD275_250519	SD275	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005
0932_SD276_0.5_241127	SD276	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD276_250519	SD276	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD277_0.5_241204	SD277	Port Phillip Bay - Inshore	04 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0018**	**0.0018**	**0.0018**
0932_SD277_250519	SD277	Port Phillip Bay - Inshore	19 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0007**	**0.0007**	**0.0007**
0932_SD278_0.3_241127	SD278	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0021**	**0.0021**	**0.0021**
0932_SD278_250520	SD278	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0084**	**0.0087**	**0.0093**
0932_SD279_0.3_241127	SD279	Port Phillip Bay - Inshore	27 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0009**	**0.0009**	**0.0009**
0932_SD279_250520	SD279	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0002**	<0.0005	<0.0005
0932_SD280_0.4_241126	SD280	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001**	**0.0011**	**0.0012**
0932_SD280_0.3_241205	SD280	Port Phillip Bay - Inshore	05 Dec 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005
0932_SD280_250520	SD280	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0003**	<0.0005	<0.0005
0932_SD281_0.4_241126	SD281	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005
0932_SD281_250521	SD281	Port Phillip Bay - Inshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0031**	**0.0034**	**0.0038**
0932_SD282_1.0_241126	SD282	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0023**	**0.0023**	**0.0023**
0932_SD282_250520	SD282	Port Phillip Bay - Inshore	20 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0014**	**0.0014**	**0.0014**

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Table 5 – Sediment Analytical Results

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001	0.0002	0.0001
0932_SD283_0.5_241126	SD283	Port Phillip Bay - Inshore	26 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.1249**	**0.1257**	**0.1267**
0932_SD283_250521	SD283	Port Phillip Bay - Inshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0022**	**0.0022**	**0.0022**
0932_SD284_0.5_241128	SD284	Port Phillip Bay - Inshore	28 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0033**	**0.0033**	**0.0033**
0932_SD284_250521	SD284	Port Phillip Bay - Inshore	21 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0124**	**0.0126**	**0.0126**
0932_SD006_201109	SD006	RAAF Lake	09 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0010	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**2.26**	**2.36**	**2.48**
0932_SD007_201109	SD007	RAAF Lake	09 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005	<0.0002	<0.0010	<0.0005	<0.0002	<0.0010	**2.13**	**2.31**	**2.42**
0932_SD008_201109	SD008	RAAF Lake	09 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0011	<0.0004	<0.0011	<0.0005	<0.0004	<0.0011	**0.598**	**0.642**	**0.684**
0932_SD009_201109	SD009	RAAF Lake	09 Nov 2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0010	<0.0004	<0.0010	<0.0010	<0.0004	<0.0010	**1.03**	**1.08**	**1.11**
0932_SD010_201109	SD010	RAAF Lake	09 Nov 2020	<0.0005	**0.0007**	<0.0005	<0.0005	**0.0002**	<0.0010	<0.0002	**0.0011**	<0.0010	<0.0002	<0.0010	**1.48**	**1.55**	**1.61**
SD227_181213	SD227	RAAF Lake	13 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.674**	**1.6976**	**1.7603**
0932_SD227_241122	SD227	RAAF Lake	22 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	**0.0084**	**0.0005**	**0.0008**	<0.0005	<0.0005	**0.0047**	**0.0008**	**2.5**	**2.6283**	**2.7118**
0932_SD227_250522	SD227	RAAF Lake	22 May 2025	<0.0001	**0.0007**	<0.0001	**0.0001**	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**2.61**	**2.9067**	**3.0323**
SD228_181213	SD228	RAAF Lake	13 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.338**	**0.3898**	**0.3968**
0932_SD228_241122	SD228	RAAF Lake	22 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.94**	**1.0951**	**1.1603**
0932_SD228_250522	SD228	RAAF Lake	22 May 2025	<0.0001	<0.0005	**0.0002**	**0.0001**	**0.0057**	<0.0005	**0.0011**	<0.0005	<0.0005	**0.0014**	**0.0007**	**3.88**	**4.3332**	**4.5196**
SD229_181213	SD229	RAAF Lake	13 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**5.6**	**6.205**	**6.573**
0932_SD229_241122	SD229	RAAF Lake	22 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.137**	**0.2465**	**0.2653**
0932_SD229_250522	SD229	RAAF Lake	22 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.14**	**0.2195**	**0.2386**
SD230_181213	SD230	RAAF Lake	13 Dec 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.68**	**3.9955**	**4.1235**
0932_SD295_241125	SD295	RAAF Lake	25 Nov 2024	<0.0001	<0.0005	**0.0001**	<0.0001	**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**6.1**	**9.4521**	**10.5948**
0932_SD295_250522	SD295	RAAF Lake	22 May 2025	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.941**	**0.9634**	**0.9827**
0932_SD296_241125	SD296	RAAF Lake	25 Nov 2024	<0.0001	<0.0005	<0.0001	<0.0001	**0.0011**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**13.9**	**14.4847**	**15.0208**
0932_SD296_250522	SD296	RAAF Lake	22 May 2025	<0.0001	**0.0006**	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.399**	**0.482**	**0.5019**
SS149_180326	SS149	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**2.38**	**2.5129**	**2.6109**
SS150_180326	SS150	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.77**	**3.9451**	**4.1041**
SS151_180326	SS151	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.35**	**1.5019**	**1.5629**
SS152_180326	SS152	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.9**	**4.2663**	**4.4813**
SS153_180326	SS153	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.27**	**1.3885**	**1.4565**
SS154_180326	SS154	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**1.65**	**2.02**	**2.172**
SS156_180326	SS156	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**0.031**	**0.031**	<0.05
SS158_180326	SS158	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**10.55**	**10.6442**	**10.7922**
SS160_180326	SS160	RAAF Lake	26 Mar 2018	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	**3.82**	**3.852**	**3.9298**

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Table 6 - Porewater Analytical Summary

					PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.0005	0.0005	0.0005	0.0005	0.0001	0.001	0.0005	0.002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
PFAS NEMP 2025 Interim marine 95% spp. DGV																632						
ANZG (March 2026) Freshwater 95% spp. DGV									0.9													
PFAS NEMP 2025 Interim marine 99%																220						
ANZG (March 2026) Freshwater 99% spp. DGV									0.02													
ANZG (March 2026) Biota Screening Value									0.0005													
Field ID	**Location**	**Date**	**Location**	**Sub-location**																		
0932_PW100_201109	PW100	09 Nov 2020	Foreshore	General	<0.02	<0.02	0.34	<0.02	0.26	-	<0.02	<0.1	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW101_201109	PW101	09 Nov 2020	Foreshore	FTA	0.02	0.03	0.24	<0.02	0.17	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW102_201109	PW102	09 Nov 2020	Foreshore	FTA	0.10	0.15	1.74	0.08	3.51	-	<0.02	<0.1	0.03	0.19	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW103_201109	PW103	09 Nov 2020	Foreshore	FTA	<0.02	<0.02	0.20	<0.02	0.10	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_QC210_201109	PW103	10 Nov 2020	Foreshore	FTA	4.1	5.3	49	2.4	100	0.09	<0.01	1.2	2.5	19	2.0	6.8	0.06	0.02	<0.01	<0.01	<0.01	<0.01
0932_PW104_201110	PW104	10 Nov 2020	Foreshore	FTA	<0.02	<0.08	1.07	<0.02	0.67	-	<0.02	<0.1	<0.02	0.15	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW105_201110	PW105	10 Nov 2020	Foreshore	FTA	3.17	6.18	60.1	2.92	117	-	<0.02	1.4	1.98	15.4	1.27	5.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_QC110_201110	PW105	10 Nov 2020	Foreshore	FTA	3.73	6.34	61.5	2.36	96.4	-	<0.02	1.6	2.06	17.1	1.29	5.14	0.05	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW106_201110	PW106	10 Nov 2020	Foreshore	FTA	0.39	0.67	6.02	0.45	17.5	-	<0.02	<0.1	0.20	1.62	0.12	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW107_201110	PW107	10 Nov 2020	Foreshore	FTA	0.65	0.95	7.50	0.07	0.31	-	<0.02	<0.1	0.14	1.25	0.12	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW108_201110	PW108	10 Nov 2020	Foreshore	FTA	<0.02	<0.02	0.16	<0.02	0.19	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW109_201110	PW109	10 Nov 2020	Foreshore	FTA	<0.02	0.02	0.69	0.02	0.16	-	<0.02	<0.1	<0.02	0.11	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW110_201110	PW110	10 Nov 2020	Foreshore	FTA	0.04	<0.02	0.11	<0.02	0.11	-	<0.02	<0.1	<0.02	0.05	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW111_201110	PW111	10 Nov 2020	Foreshore	FTA	0.33	0.46	5.17	0.16	4.11	-	<0.02	<0.1	0.24	1.51	0.14	0.47	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW112_201110	PW112	10 Nov 2020	Foreshore	FTA	0.08	0.08	0.97	0.06	3.22	-	<0.02	<0.1	0.04	0.21	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW113_201110	PW113	10 Nov 2020	Foreshore	FTA	<0.02	0.02	0.58	0.04	0.37	-	<0.02	<0.1	<0.02	0.05	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
0932_PW114_250519	PW114	19 May 2025	Foreshore	General	0.0016	<0.0005	<0.0005	<0.0005	0.0004	-	<0.0005	<0.002	0.0009	0.0014	0.0011	0.0042	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC107_250519	PW115	22 May 2025	Foreshore	General	0.0012	<0.0005	0.0014	<0.0005	0.0005	-	<0.0005	<0.002	0.0007	0.0016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW115_250519	PW115	19 May 2025	Foreshore	General	0.0018	0.0008	0.0022	<0.0005	0.0009	-	<0.0005	<0.002	0.0010	0.0017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW116_250519	PW116	19 May 2025	Foreshore	General	0.0015	0.0011	0.0054	<0.0005	0.0006	-	<0.0005	<0.002	<0.0005	0.0017	0.0006	0.0014	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW118_250520	PW118	20 May 2025	Foreshore	General	0.0016	0.0010	0.0025	<0.0005	0.0004	-	<0.0005	0.002	0.0017	0.0054	0.0020	0.0044	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW119_250520	PW119	20 May 2025	Foreshore	General	0.0010	0.0006	0.0008	<0.0005	0.0017	-	<0.0005	<0.002	0.0012	0.0029	0.0011	0.0036	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC205_250521	PW120	21 May 2025	Foreshore	FTA	0.003	0.001	0.004	<0.001	0.0001	<0.001	<0.001	<0.005	0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0932_PW120_250521	PW120	21 May 2025	Foreshore	FTA	0.0018	0.0016	0.0067	<0.0005	0.0004	-	<0.0005	<0.002	0.0009	0.0024	0.0007	0.0016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_QC105_250521	PW120	22 May 2025	Foreshore	FTA	0.0021	0.0013	0.0044	<0.0005	0.0004	-	<0.0005	<0.002	0.0010	0.0033	0.0009	0.0021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW121_250520	PW121	20 May 2025	Foreshore	FTA	0.0022	<0.0005	0.0010	<0.0005	<0.0003	-	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW122_250521	PW122	21 May 2025	Foreshore	FTA	0.0111	0.0104	0.0486	0.0006	0.0022	-	<0.0005	<0.002	0.0048	0.0346	0.0044	0.0213	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW123_250521	PW123	21 May 2025	Foreshore	FTA	0.0015	0.0012	0.0042	<0.0005	0.0008	-	<0.0005	<0.002	0.0007	0.0016	0.0005	0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0932_PW139_250519	PW139	19 May 2025	Foreshore	General	0.007	0.007	0.11	0.007	0.73	0.001	0.002	<0.005	0.005	0.028	0.005	0.018	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
0932_PW139_250520	PW140	20 May 2025	Foreshore	General	0.004	0.002	0.069	0.006	0.37	<0.001	<0.001	<0.005	0.003	0.019	0.003	0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0932_QC102_241203	SL001	03 Dec 2024	Foreshore	General	0.001	0.002	0.13	0.044	0.92	<0.001	<0.001	<0.005	<0.001	0.004	0.002	0.046	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
0932_QC202_241203	SL001	03 Dec 2024	Foreshore	General	0.0011	<0.0010	0.073	0.060	1.6	-	<0.0020	<0.0040	<0.0020	0.0023	0.0013	0.049	0.0036	<0.0020	<0.0020	<0.0050	<0.020	<0.10
0932_SL001_241203	SL001	03 Dec 2024	Foreshore	General	<0.001	<0.001	0.025	0.050	2.4	0.004	<0.001	<0.005	<0.001	0.002	<0.001	0.016	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL002_241203	SL002	03 Dec 2024	Foreshore	General	0.001	0.002	0.042	0.011	0.94	0.002	<0.001	<0.005	0.002	0.008	0.003	0.013	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL003_241204	SL003	04 Dec 2024	Foreshore	General	0.003	0.006	0.092	0.032	0.98	0.001	<0.001	<0.005	0.002	0.009	0.001	0.013	0.004	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL005_241205	SL005	05 Dec 2024	Foreshore	General	0.003	0.008	0.077	0.005	0.65	<0.001	<0.001	<0.005	0.003	0.013	0.002	0.011	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL006_241205	SL006	05 Dec 2024	Foreshore	General	<0.001	0.002	0.028	0.007	0.59	<0.001	<0.001	<0.005	0.001	0.004	0.002	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL007_241206	SL007	06 Dec 2024	Foreshore	FTA	0.002	0.004	0.046	0.002	0.42	<0.001	<0.001	<0.005	0.001	0.007	0.002	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL009_241209	SL009	09 Dec 2024	Foreshore	FTA	0.003	0.002	0.046	0.002	0.29	<0.001	<0.001	<0.005	0.003	0.009	0.002	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0932_SL010_241129	SL010	29 Nov 2024	Foreshore	FTA	<0.001	<0.001	0.027	0.003	0.039	<0.001	<0.001	<0.005	<0.001	0.003	0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Freshwater 90%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%

Point Cook HHERA

Table 6 - Porewater Analytical Summary

					PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
					4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.001	0.001	0.001	0.001	0.0005	0.001	0.0005	0.001	0.001	0.0005	0.001	0.0003	0.0003	0.0003
PFAS NEMP 2025 Interim marine 95% spp. DGV																		
ANZG (March 2026) Freshwater 95% spp. DGV																		
PFAS NEMP 2025 Interim marine 99%																		
ANZG (March 2026) Freshwater 99% spp. DGV																		
ANZG (March 2026) Biota Screening Value																		
Field ID	**Location**	**Date**	**Location**	**Sub-location**														
0932_PW100_201109	PW100	09 Nov 2020	Foreshore	General	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.60**	**0.64**	**0.64**
0932_PW101_201109	PW101	09 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.41**	**0.48**	**0.51**
0932_PW102_201109	PW102	09 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**5.25**	**5.68**	**5.91**
0932_PW103_201109	PW103	09 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.30**	**0.35**	**0.35**
0932_QC210_201109	PW103	10 Nov 2020	Foreshore	FTA	*<0.01*	*<0.05*	*<0.01*	*<0.01*	**0.11**	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**149**	**184.6**	**193.98**
0932_PW104_201110	PW104	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**1.74**	**1.89**	**1.89**
0932_PW105_201110	PW105	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.04**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**177**	**205**	**214**
0932_QC110_201110	PW105	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.04**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**158**	**189**	**198**
0932_PW106_201110	PW106	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	**0.05**	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**23.5**	**26.4**	**27.6**
0932_PW107_201110	PW107	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**7.81**	**10.3**	**11.3**
0932_PW108_201110	PW108	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.35**	**0.37**	**0.37**
0932_PW109_201110	PW109	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.85**	**1.10**	**1.14**
0932_PW110_201110	PW110	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.22**	**0.33**	**0.33**
0932_PW111_201110	PW111	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**9.28**	**12.0**	**12.6**
0932_PW112_201110	PW112	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**4.19**	**4.69**	**4.83**
0932_PW113_201110	PW113	10 Nov 2020	Foreshore	FTA	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	**0.95**	**1.08**	**1.14**
0932_PW114_250519	PW114	19 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0004**	**0.0096**	**0.0096**
0932_QC107_250519	PW115	22 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0019**	**0.0054**	**0.0054**
0932_PW115_250519	PW115	19 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0031**	**0.0076**	**0.0084**
0932_PW116_250519	PW116	19 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0060**	**0.0112**	**0.0123**
0932_PW118_250520	PW118	20 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0029**	**0.0200**	**0.0210**
0932_PW119_250520	PW119	20 May 2025	Foreshore	General	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0025**	**0.0123**	**0.0129**
0932_QC205_250521	PW120	21 May 2025	Foreshore	FTA	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.0041**	**0.0131**	**0.0141**
0932_PW120_250521	PW120	21 May 2025	Foreshore	FTA	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0071**	**0.0145**	**0.0161**
0932_QC105_250521	PW120	22 May 2025	Foreshore	FTA	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0048**	**0.0142**	**0.0155**
0932_PW121_250520	PW121	20 May 2025	Foreshore	FTA	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0010**	**0.0032**	**0.0032**
0932_PW122_250521	PW122	21 May 2025	Foreshore	FTA	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0508**	**0.127**	**0.138**
0932_PW123_250521	PW123	21 May 2025	Foreshore	FTA	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	*<0.0005*	*<0.001*	*<0.001*	*<0.0005*	*<0.001*	**0.0050**	**0.0103**	**0.0115**
0932_PW139_250519	PW139	19 May 2025	Foreshore	General	*<0.001*	**0.008**	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.84**	**0.911**	**0.933**
0932_PW139_250520	PW140	20 May 2025	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.439**	**0.477**	**0.49**
0932_QC102_241203	SL001	03 Dec 2024	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**1.05**	**1.103**	**1.151**
0932_QC202_241203	SL001	03 Dec 2024	Foreshore	General	*<0.0010*	*<0.00040*	*<0.00040*	*<0.0020*	*<0.010*	*<0.050*	*<0.0020*	*<0.050*	*<0.10*	*<0.0020*	*<0.50*	**1.7**	**-**	**1.8**
0932_SL001_241203	SL001	03 Dec 2024	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**2.425**	**2.443**	**2.5**
0932_SL002_241203	SL002	03 Dec 2024	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.982**	**1.009**	**1.026**
0932_SL003_241204	SL003	04 Dec 2024	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**1.072**	**1.1**	**1.143**
0932_SL005_241205	SL005	05 Dec 2024	Foreshore	General	*<0.001*	*0.014*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.727**	**0.773**	**0.788**
0932_SL006_241205	SL006	05 Dec 2024	Foreshore	General	*<0.001*	*<0.005*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.618**	**0.638**	**0.647**
0932_SL007_241206	SL007	06 Dec 2024	Foreshore	FTA	*<0.001*	*0.11*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.466**	**0.594**	**0.6**
0932_SL009_241209	SL009	09 Dec 2024	Foreshore	FTA	*<0.001*	*0.15*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.336**	**0.509**	**0.513**
0932_SL010_241129	SL010	29 Nov 2024	Foreshore	FTA	*<0.001*	*0.015*	*<0.001*	*<0.001*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.066**	**0.091**	**0.094**

Environmental Standards

HEPA, March 2025, PFAS NEMP 2025 Freshwater 90%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%

HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1			PFOS+PFHxS							PFOS			PFOA		
2	**Area**	**N**	**D**	**Mean**	**95% UCL**	**Max**	**EPC**	**Basis**	**MPE**	**D**	**EPC**	**Basis**	**D**	**EPC**	**Basis**
3	AV_PPB_FO	20	11	0.00165	0.0026	0.007	0.0026	95% KM Adjusted Gamma UCL	58%	11	0.0026	95% KM Adjusted Gamma UCL	1	#N/A	Maximum
4	AV_PPB_IN	20	13	0.0044	0.01	0.032	0.0101	95% KM Adjusted Gamma UCL	130%	13	0.0101	95% KM Adjusted Gamma UCL	3	0.001	Maximum
5	BI_PPB_FO	21	16	0.0399	0.082	0.49	0.0821	95% KM (t) UCL	106%	16	0.0821	95% KM (t) UCL	8	0.051	Maximum
6	BI_PPB_IN	41	34	0.00824	0.012	0.125	0.0121	KM H-UCL	47%	34	0.0121	KM H-UCL	5	0.0022	Maximum
7	PI_PPB_IN	5	2	0.0069	insufficient data	0.0227	0.0227	Maximum	229%	2	0.0227	Maximum	1	#N/A	Maximum
8	FF_PPB_IN	29	27	0.0134	0.022	0.086	0.0222	95% KM Adjusted Gamma UCL	66%	27	0.0222	95% KM Adjusted Gamma UCL	1	#N/A	Maximum
9	PF_PPB_IN	6	6	0.056	insufficient data	0.13	0.13	Maximum	132%	6	0.13	Maximum	3	7.0000E-4	Maximum
10															
11	**UCL Statistics for Data Sets with Non-Detects**														
12															
13	User Selected Options														
14	Date/Time of Computation	ProUCL 5.2 25/09/2025 3:30:54 PM													
15	From File	WorkSheet_c.xls													
16	Full Precision	OFF													
17	Confidence Coefficient	95%													
18	Number of Bootstrap Operations	2000													
19															
20	**Aquatic Vegetation_Port Phillip Bay Foreshore_PFOS+PFHxS**														
21															
22	**General Statistics**														
23	Total Number of Observations	20	Number of Distinct Observations	12											
24	Number of Detects	11	Number of Non-Detects	9											
25	Number of Distinct Detects	10	Number of Distinct Non-Detects	2											
26	Minimum Detect	6.0000E-4	Minimum Non-Detect	5.0000E-4											
27	Maximum Detect	0.007	Maximum Non-Detect	0.005											
28	Variance Detects	4.2289E-6	Percent Non-Detects	45%											
29	Mean Detects	0.00211	SD Detects	0.00206											
30	Median Detects	0.0013	CV Detects	0.975											
31	Skewness Detects	1.853	Kurtosis Detects	2.679											
32	Mean of Logged Detects	-6.486	SD of Logged Detects	0.79											
33															
34	**Normal GOF Test on Detects Only**														
35	Shapiro Wilk Test Statistic	0.721	**Shapiro Wilk GOF Test**												
36	1% Shapiro Wilk Critical Value	0.792	Detected Data Not Normal at 1% Significance Level												
37	Lilliefors Test Statistic	0.32	**Lilliefors GOF Test**												
38	1% Lilliefors Critical Value	0.291	Detected Data Not Normal at 1% Significance Level												
39	**Detected Data Not Normal at 1% Significance Level**														
40															
41	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**														
42	KM Mean	0.00165	KM Standard Error of Mean	3.8742E-4											
43	90KM SD	0.00159	95% KM (BCA) UCL	0.0023											
44	95% KM (t) UCL	0.00232	95% KM (Percentile Bootstrap) UCL	0.0023											
45	95% KM (z) UCL	0.00229	95% KM Bootstrap t UCL	0.00292											
46	90% KM Chebyshev UCL	0.00281	95% KM Chebyshev UCL	0.00334											
47	97.5% KM Chebyshev UCL	0.00407	99% KM Chebyshev UCL	0.0055											
48															
49	**Gamma GOF Tests on Detected Observations Only**														
50	A-D Test Statistic	0.719	**Anderson-Darling GOF Test**												
51	5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level												
52	K-S Test Statistic	0.228	**Kolmogorov-Smirnov GOF**												
53	5% K-S Critical Value	0.259	Detected data appear Gamma Distributed at 5% Significance Level												
54	**Detected data appear Gamma Distributed at 5% Significance Level**														
55															
56	**Gamma Statistics on Detected Data Only**														
57	k hat (MLE)	1.69	k star (bias corrected MLE)	1.29											
58	Theta hat (MLE)	0.00125	Theta star (bias corrected MLE)	0.00163											
59	nu hat (MLE)	37.19	nu star (bias corrected)	28.38											
60	Mean (detects)	0.00211													
61															
62	**Gamma ROS Statistics using Imputed Non-Detects**														
63	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
64	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
65	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
66	This is especially true when the sample size is small.														
67	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
68	Minimum	6.0000E-4	Mean	0.00566											
69	Maximum	0.01	Median	0.00605											
70	SD	0.0043	CV	0.759											
71	k hat (MLE)	1.215	k star (bias corrected MLE)	1.066											
72	Theta hat (MLE)	0.00466	Theta star (bias corrected MLE)	0.00531											
73	nu hat (MLE)	48.59	nu star (bias corrected)	42.63											
74	Adjusted Level of Significance (β)	0.038													
75	Approximate Chi Square Value (42.63, α)	28.66	Adjusted Chi Square Value (42.63, β)	27.76											
76	95% Gamma Approximate UCL	0.00842	95% Gamma Adjusted UCL	0.00869											
77															
78	**Estimates of Gamma Parameters using KM Estimates**														
79	Mean (KM)	0.00165	SD (KM)	0.00159											
80	Variance (KM)	2.5127E-6	SE of Mean (KM)	3.8742E-4											
81	k hat (KM)	1.082	k star (KM)	0.953											
82	nu hat (KM)	43.29	nu star (KM)	38.13											
83	theta hat (KM)	0.00152	theta star (KM)	0.00173											
84	80% gamma percentile (KM)	0.00266	90% gamma percentile (KM)	0.00384											
85	95% gamma percentile (KM)	0.00502	99% gamma percentile (KM)	0.00778											
86															
87	**Gamma Kaplan-Meier (KM) Statistics**														
88	Approximate Chi Square Value (38.13, α)	24.99	Adjusted Chi Square Value (38.13, β)	24.15											

89	95% KM Approximate Gamma UCL				0.00252	95% KM Adjusted Gamma UCL					0.0026				
90															
91	**Lognormal GOF Test on Detected Observations Only**														
92	Shapiro Wilk Test Statistic				0.91	**Shapiro Wilk GOF Test**									
93	10% Shapiro Wilk Critical Value				0.876	Detected Data appear Lognormal at 10% Significance Level									
94	Lilliefors Test Statistic				0.18	**Lilliefors GOF Test**									
95	10% Lilliefors Critical Value				0.231	Detected Data appear Lognormal at 10% Significance Level									
96	**Detected Data appear Lognormal at 10% Significance Level**														
97															
98	**Lognormal ROS Statistics Using Imputed Non-Detects**														
99	Mean in Original Scale				0.00165	Mean in Log Scale					-6.734				
100	SD in Original Scale				0.00165	SD in Log Scale					0.801				
101	95% t UCL (assumes normality of ROS data)				0.00229	95% Percentile Bootstrap UCL					0.00227				
102	95% BCA Bootstrap UCL				0.00247	95% Bootstrap t UCL					0.00298				
103	95% H-UCL (Log ROS)				0.00253										
104															
105	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**														
106	KM Mean (logged)				-6.695	KM Geo Mean					0.00124				
107	KM SD (logged)				0.692	95% Critical H Value (KM-Log)					2.227				
108	KM Standard Error of Mean (logged)				0.188	95% H-UCL (KM -Log)					0.00224				
109	KM SD (logged)				0.692	95% Critical H Value (KM-Log)					2.227				
110	KM Standard Error of Mean (logged)				0.188										
111															
112	**DL/2 Statistics**														
113	**DL/2 Normal**					**DL/2 Log-Transformed**									
114	Mean in Original Scale				0.00217	Mean in Log Scale					-6.378				
115	SD in Original Scale				0.00157	SD in Log Scale					0.769				
116	95% t UCL (Assumes normality)				0.00278	95% H-Stat UCL					0.00344				
117	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
118															
119	**Nonparametric Distribution Free UCL Statistics**														
120	**Detected Data appear Gamma Distributed at 5% Significance Level**														
121															
122	**Suggested UCL to Use**														
123	95% KM Adjusted Gamma UCL				0.0026	95% GROS Adjusted Gamma UCL					0.00869				
124	**Warning: Recommended UCL exceeds the maximum observation**														
125															
126	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
127	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
128	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
129															
130	**Aquatic Vegetation_Port Phillip Bay Inshore_PFOS+PFHxS**														
131															
132	**General Statistics**														
133	Total Number of Observations				20	Number of Distinct Observations					14				
134	Number of Detects				13	Number of Non-Detects					7				
135	Number of Distinct Detects				13	Number of Distinct Non-Detects					1				
136	Minimum Detect				7.0000E-4	Minimum Non-Detect					0.005				
137	Maximum Detect				0.032	Maximum Non-Detect					0.005				
138	Variance Detects				8.1133E-5	Percent Non-Detects					35%				
139	Mean Detects				0.0058	SD Detects					0.00901				
140	Median Detects				0.0016	CV Detects					1.553				
141	Skewness Detects				2.46	Kurtosis Detects					6.231				
142	Mean of Logged Detects				-5.936	SD of Logged Detects					1.203				
143															
144	**Normal GOF Test on Detects Only**														
145	Shapiro Wilk Test Statistic				0.625	**Shapiro Wilk GOF Test**									
146	1% Shapiro Wilk Critical Value				0.814	Detected Data Not Normal at 1% Significance Level									
147	Lilliefors Test Statistic				0.322	**Lilliefors GOF Test**									
148	1% Lilliefors Critical Value				0.271	Detected Data Not Normal at 1% Significance Level									
149	**Detected Data Not Normal at 1% Significance Level**														
150															
151	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**														
152	KM Mean				0.0044	KM Standard Error of Mean					0.0017				
153	90KM SD				0.00727	95% KM (BCA) UCL					0.00749				
154	95% KM (t) UCL				0.00735	95% KM (Percentile Bootstrap) UCL					0.00733				
155	95% KM (z) UCL				0.00721	95% KM Bootstrap t UCL					0.0134				
156	90% KM Chebyshev UCL				0.00952	95% KM Chebyshev UCL					0.0118				
157	97.5% KM Chebyshev UCL				0.015	99% KM Chebyshev UCL					0.0214				
158															
159	**Gamma GOF Tests on Detected Observations Only**														
160	A-D Test Statistic				1.064	**Anderson-Darling GOF Test**									
161	5% A-D Critical Value				0.77	Detected Data Not Gamma Distributed at 5% Significance Level									
162	K-S Test Statistic				0.242	**Kolmogorov-Smirnov GOF**									
163	5% K-S Critical Value				0.246	Detected data appear Gamma Distributed at 5% Significance Level									
164	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**														
165															
166	**Gamma Statistics on Detected Data Only**														
167	k hat (MLE)				0.76	k star (bias corrected MLE)					0.636				
168	Theta hat (MLE)				0.00763	Theta star (bias corrected MLE)					0.00912				
169	nu hat (MLE)				19.77	nu star (bias corrected)					16.54				
170	Mean (detects)				0.0058										
171															
172	**Gamma ROS Statistics using Imputed Non-Detects**														
173	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
174	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
175	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
176	This is especially true when the sample size is small.														

177	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
178					Minimum	7.0000E-4					Mean	0.00727			
179					Maximum	0.032					Median	0.00705			
180					SD	0.00745					CV	1.024			
181					k hat (MLE)	1.051					k star (bias corrected MLE)	0.927			
182					Theta hat (MLE)	0.00692					Theta star (bias corrected MLE)	0.00784			
183					nu hat (MLE)	42.05					nu star (bias corrected)	37.07			
184					Adjusted Level of Significance (β)	0.038									
185					Approximate Chi Square Value (37.07, α)	24.13					Adjusted Chi Square Value (37.07, β)	23.31			
186					95% Gamma Approximate UCL	0.0112					95% Gamma Adjusted UCL	0.0116			
187															
188	**Estimates of Gamma Parameters using KM Estimates**														
189					Mean (KM)	0.0044					SD (KM)	0.00727			
190					Variance (KM)	5.2801E-5					SE of Mean (KM)	0.0017			
191					k hat (KM)	0.367					k star (KM)	0.345			
192					nu hat (KM)	14.69					nu star (KM)	13.82			
193					theta hat (KM)	0.012					theta star (KM)	0.0127			
194					80% gamma percentile (KM)	0.00696					90% gamma percentile (KM)	0.0127			
195					95% gamma percentile (KM)	0.0192					99% gamma percentile (KM)	0.0358			
196															
197	**Gamma Kaplan-Meier (KM) Statistics**														
198					Approximate Chi Square Value (13.82, α)	6.448					Adjusted Chi Square Value (13.82, β)	6.053			
199					95% KM Approximate Gamma UCL	0.00944					95% KM Adjusted Gamma UCL	0.0101			
200															
201	**Lognormal GOF Test on Detected Observations Only**														
202					Shapiro Wilk Test Statistic	0.888					**Shapiro Wilk GOF Test**				
203					10% Shapiro Wilk Critical Value	0.889					Detected Data Not Lognormal at 10% Significance Level				
204					Lilliefors Test Statistic	0.2					**Lilliefors GOF Test**				
205					10% Lilliefors Critical Value	0.215					Detected Data appear Lognormal at 10% Significance Level				
206	**Detected Data appear Approximate Lognormal at 10% Significance Level**														
207															
208	**Lognormal ROS Statistics Using Imputed Non-Detects**														
209					Mean in Original Scale	0.00451					Mean in Log Scale	-6.098			
210					SD in Original Scale	0.00743					SD in Log Scale	1.078			
211					95% t UCL (assumes normality of ROS data)	0.00739					95% Percentile Bootstrap UCL	0.00731			
212					95% BCA Bootstrap UCL	0.00873					95% Bootstrap t UCL	0.0127			
213					95% H-UCL (Log ROS)	0.00794									
214															
215	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**														
216					KM Mean (logged)	-6.13					KM Geo Mean	0.00218			
217					KM SD (logged)	1.026					95% Critical H Value (KM-Log)	2.672			
218					KM Standard Error of Mean (logged)	0.26					95% H-UCL (KM -Log)	0.00691			
219					KM SD (logged)	1.026					95% Critical H Value (KM-Log)	2.672			
220					KM Standard Error of Mean (logged)	0.26									
221															
222	**DL/2 Statistics**														
223	**DL/2 Normal**										**DL/2 Log-Transformed**				
224					Mean in Original Scale	0.00465					Mean in Log Scale	-5.955			
225					SD in Original Scale	0.00734					SD in Log Scale	0.957			
226					95% t UCL (Assumes normality)	0.00748					95% H-Stat UCL	0.0072			
227	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
228															
229	**Nonparametric Distribution Free UCL Statistics**														
230	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**														
231															
232	**Suggested UCL to Use**														
233					95% KM Adjusted Gamma UCL	0.0101									
234															
235	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**														
236	**Please verify the data were collected from random locations.**														
237	**If the data were collected using judgmental or other non-random methods,**														
238	**then contact a statistician to correctly calculate UCLs.**														
239															
240	When a data set follows an approximate distribution passing only one of the GOF tests,														
241	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL														
242															
243	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
244	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
245	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
246															
247	**Aquatic Vegetation_Port Phillip Bay Foreshore_PFOS**														
248															
249	**General Statistics**														
250					Total Number of Observations	20					Number of Distinct Observations	13			
251					Number of Detects	12					Number of Non-Detects	8			
252					Number of Distinct Detects	12					Number of Distinct Non-Detects	1			
253					Minimum Detect	4.0000E-4					Minimum Non-Detect	0.005			
254					Maximum Detect	0.007					Maximum Non-Detect	0.005			
255					Variance Detects	3.6820E-6					Percent Non-Detects	40%			
256					Mean Detects	0.00188					SD Detects	0.00192			
257					Median Detects	0.00125					CV Detects	1.023			
258					Skewness Detects	2.149					Kurtosis Detects	4.525			
259					Mean of Logged Detects	-6.624					SD of Logged Detects	0.817			
260															
261	**Normal GOF Test on Detects Only**														
262					Shapiro Wilk Test Statistic	0.715					**Shapiro Wilk GOF Test**				
263					1% Shapiro Wilk Critical Value	0.805					Detected Data Not Normal at 1% Significance Level				
264					Lilliefors Test Statistic	0.287					**Lilliefors GOF Test**				

265	1% Lilliefors Critical Value				0.281	Detected Data Not Normal at 1% Significance Level									
266	**Detected Data Not Normal at 1% Significance Level**														
267															
268	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**														
269	KM Mean				0.00169	KM Standard Error of Mean					4.2119E-4				
270	90KM SD				0.00158	95% KM (BCA) UCL					0.00241				
271	95% KM (t) UCL				0.00242	95% KM (Percentile Bootstrap) UCL					0.00242				
272	95% KM (z) UCL				0.00238	95% KM Bootstrap t UCL					0.00333				
273	90% KM Chebyshev UCL				0.00295	95% KM Chebyshev UCL					0.00352				
274	97.5% KM Chebyshev UCL				0.00432	99% KM Chebyshev UCL					0.00588				
275															
276	**Gamma GOF Tests on Detected Observations Only**														
277	A-D Test Statistic				0.581	**Anderson-Darling GOF Test**									
278	5% A-D Critical Value				0.745	Detected data appear Gamma Distributed at 5% Significance Level									
279	K-S Test Statistic				0.198	**Kolmogorov-Smirnov GOF**									
280	5% K-S Critical Value				0.249	Detected data appear Gamma Distributed at 5% Significance Level									
281	**Detected data appear Gamma Distributed at 5% Significance Level**														
282															
283	**Gamma Statistics on Detected Data Only**														
284	k hat (MLE)				1.595	k star (bias corrected MLE)					1.252				
285	Theta hat (MLE)				0.00118	Theta star (bias corrected MLE)					0.0015				
286	nu hat (MLE)				38.29	nu star (bias corrected)					30.05				
287	Mean (detects)				0.00188										
288															
289	**Gamma ROS Statistics using Imputed Non-Detects**														
290	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
291	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
292	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
293	This is especially true when the sample size is small.														
294	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
295	Minimum				4.0000E-4	Mean					0.00513				
296	Maximum				0.01	Median					0.0032				
297	SD				0.00434	CV					0.846				
298	k hat (MLE)				1.056	k star (bias corrected MLE)					0.931				
299	Theta hat (MLE)				0.00485	Theta star (bias corrected MLE)					0.0055				
300	nu hat (MLE)				42.26	nu star (bias corrected)					37.25				
301	Adjusted Level of Significance (β)				0.038										
302	Approximate Chi Square Value (37.25, α)				24.28	Adjusted Chi Square Value (37.25, β)					23.45				
303	95% Gamma Approximate UCL				0.00786	95% Gamma Adjusted UCL					0.00814				
304															
305	**Estimates of Gamma Parameters using KM Estimates**														
306	Mean (KM)				0.00169	SD (KM)					0.00158				
307	Variance (KM)				2.5081E-6	SE of Mean (KM)					4.2119E-4				
308	k hat (KM)				1.137	k star (KM)					1				
309	nu hat (KM)				45.48	nu star (KM)					39.99				
310	theta hat (KM)				0.00149	theta star (KM)					0.00169				
311	80% gamma percentile (KM)				0.00272	90% gamma percentile (KM)					0.00389				
312	95% gamma percentile (KM)				0.00506	99% gamma percentile (KM)					0.00778				
313															
314	**Gamma Kaplan-Meier (KM) Statistics**														
315	Approximate Chi Square Value (39.99, α)				26.5	Adjusted Chi Square Value (39.99, β)					25.63				
316	95% KM Approximate Gamma UCL				0.00255	95% KM Adjusted Gamma UCL					0.00263				
317															
318	**Lognormal GOF Test on Detected Observations Only**														
319	Shapiro Wilk Test Statistic				0.957	**Shapiro Wilk GOF Test**									
320	10% Shapiro Wilk Critical Value				0.883	Detected Data appear Lognormal at 10% Significance Level									
321	Lilliefors Test Statistic				0.141	**Lilliefors GOF Test**									
322	10% Lilliefors Critical Value				0.223	Detected Data appear Lognormal at 10% Significance Level									
323	**Detected Data appear Lognormal at 10% Significance Level**														
324															
325	**Lognormal ROS Statistics Using Imputed Non-Detects**														
326	Mean in Original Scale				0.00167	Mean in Log Scale					-6.681				
327	SD in Original Scale				0.00157	SD in Log Scale					0.737				
328	95% t UCL (assumes normality of ROS data)				0.00228	95% Percentile Bootstrap UCL					0.00224				
329	95% BCA Bootstrap UCL				0.00246	95% Bootstrap t UCL					0.00282				
330	95% H-UCL (Log ROS)				0.00242										
331															
332	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**														
333	KM Mean (logged)				-6.685	KM Geo Mean					0.00125				
334	KM SD (logged)				0.728	95% Critical H Value (KM-Log)					2.27				
335	KM Standard Error of Mean (logged)				0.209	95% H-UCL (KM -Log)					0.00238				
336	KM SD (logged)				0.728	95% Critical H Value (KM-Log)					2.27				
337	KM Standard Error of Mean (logged)				0.209										
338															
339	**DL/2 Statistics**														
340	**DL/2 Normal**					**DL/2 Log-Transformed**									
341	Mean in Original Scale				0.00213	Mean in Log Scale					-6.371				
342	SD in Original Scale				0.00149	SD in Log Scale					0.699				
343	95% t UCL (Assumes normality)				0.0027	95% H-Stat UCL					0.00312				
344	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
345															
346	**Nonparametric Distribution Free UCL Statistics**														
347	**Detected Data appear Gamma Distributed at 5% Significance Level**														
348															
349	**Suggested UCL to Use**														
350	95% KM Adjusted Gamma UCL				0.00263	95% GROS Adjusted Gamma UCL					0.00814				
351	**Warning: Recommended UCL exceeds the maximum observation**														
352															

353	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**														
354	**Please verify the data were collected from random locations.**														
355	**If the data were collected using judgmental or other non-random methods,**														
356	**then contact a statistician to correctly calculate UCLs.**														
357															
358	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
359	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
360	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
361															
362	**Aquatic Vegetation_Port Phillip Bay Inshore_PFOS**														
363															
364	**General Statistics**														
365	Total Number of Observations					20		Number of Distinct Observations				13			
366	Number of Detects					13		Number of Non-Detects				7			
367	Number of Distinct Detects					12		Number of Distinct Non-Detects				1			
368	Minimum Detect					7.0000E-4		Minimum Non-Detect				0.005			
369	Maximum Detect					0.012		Maximum Non-Detect				0.005			
370	Variance Detects					1.8348E-5		Percent Non-Detects				35%			
371	Mean Detects					0.00395		SD Detects				0.00428			
372	Median Detects					0.0016		CV Detects				1.085			
373	Skewness Detects					1.315		Kurtosis Detects				0.104			
374	Mean of Logged Detects					-6.037		SD of Logged Detects				1.014			
375															
376	**Normal GOF Test on Detects Only**														
377	Shapiro Wilk Test Statistic					0.724		**Shapiro Wilk GOF Test**							
378	1% Shapiro Wilk Critical Value					0.814		Detected Data Not Normal at 1% Significance Level							
379	Lilliefors Test Statistic					0.274		**Lilliefors GOF Test**							
380	1% Lilliefors Critical Value					0.271		Detected Data Not Normal at 1% Significance Level							
381	**Detected Data Not Normal at 1% Significance Level**														
382															
383	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**														
384	KM Mean					0.00319		KM Standard Error of Mean				8.4794E-4			
385	90KM SD					0.00354		95% KM (BCA) UCL				0.00468			
386	95% KM (t) UCL					0.00465		95% KM (Percentile Bootstrap) UCL				0.00462			
387	95% KM (z) UCL					0.00458		95% KM Bootstrap t UCL				0.00554			
388	90% KM Chebyshev UCL					0.00573		95% KM Chebyshev UCL				0.00688			
389	97.5% KM Chebyshev UCL					0.00848		99% KM Chebyshev UCL				0.0116			
390															
391	**Gamma GOF Tests on Detected Observations Only**														
392	A-D Test Statistic					0.935		**Anderson-Darling GOF Test**							
393	5% A-D Critical Value					0.756		Detected Data Not Gamma Distributed at 5% Significance Level							
394	K-S Test Statistic					0.231		**Kolmogorov-Smirnov GOF**							
395	5% K-S Critical Value					0.242		Detected data appear Gamma Distributed at 5% Significance Level							
396	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**														
397															
398	**Gamma Statistics on Detected Data Only**														
399	k hat (MLE)					1.133		k star (bias corrected MLE)				0.923			
400	Theta hat (MLE)					0.00348		Theta star (bias corrected MLE)				0.00428			
401	nu hat (MLE)					29.45		nu star (bias corrected)				23.99			
402	Mean (detects)					0.00395									
403															
404	**Gamma ROS Statistics using Imputed Non-Detects**														
405	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
406	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
407	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
408	This is especially true when the sample size is small.														
409	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
410	Minimum					7.0000E-4		Mean				0.00607			
411	Maximum					0.012		Median				0.0069			
412	SD					0.00451		CV				0.744			
413	k hat (MLE)					1.302		k star (bias corrected MLE)				1.14			
414	Theta hat (MLE)					0.00466		Theta star (bias corrected MLE)				0.00532			
415	nu hat (MLE)					52.07		nu star (bias corrected)				45.59			
416	Adjusted Level of Significance (β)					0.038									
417	Approximate Chi Square Value (45.59, α)					31.1		Adjusted Chi Square Value (45.59, β)				30.16			
418	95% Gamma Approximate UCL					0.00889		95% Gamma Adjusted UCL				0.00917			
419															
420	**Estimates of Gamma Parameters using KM Estimates**														
421	Mean (KM)					0.00319		SD (KM)				0.00354			
422	Variance (KM)					1.2520E-5		SE of Mean (KM)				8.4794E-4			
423	k hat (KM)					0.812		k star (KM)				0.723			
424	nu hat (KM)					32.47		nu star (KM)				28.93			
425	theta hat (KM)					0.00393		theta star (KM)				0.00441			
426	80% gamma percentile (KM)					0.00523		90% gamma percentile (KM)				0.00794			
427	95% gamma percentile (KM)					0.0107		99% gamma percentile (KM)				0.0173			
428															
429	**Gamma Kaplan-Meier (KM) Statistics**														
430	Approximate Chi Square Value (28.93, α)					17.66		Adjusted Chi Square Value (28.93, β)				16.96			
431	95% KM Approximate Gamma UCL					0.00522		95% KM Adjusted Gamma UCL				0.00544			
432															
433	**Lognormal GOF Test on Detected Observations Only**														
434	Shapiro Wilk Test Statistic					0.882		**Shapiro Wilk GOF Test**							
435	10% Shapiro Wilk Critical Value					0.889		Detected Data Not Lognormal at 10% Significance Level							
436	Lilliefors Test Statistic					0.192		**Lilliefors GOF Test**							
437	10% Lilliefors Critical Value					0.215		Detected Data appear Lognormal at 10% Significance Level							
438	**Detected Data appear Approximate Lognormal at 10% Significance Level**														
439															
440	**Lognormal ROS Statistics Using Imputed Non-Detects**														

Mean in Original Scale	0.00324	Mean in Log Scale	-6.176
SD in Original Scale	0.00361	SD in Log Scale	0.911
95% t UCL (assumes normality of ROS data)	0.00463	95% Percentile Bootstrap UCL	0.00459
95% BCA Bootstrap UCL	0.00493	95% Bootstrap t UCL	0.00518
95% H-UCL (Log ROS)	0.00532		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-6.199	KM Geo Mean	0.00203
KM SD (logged)	0.879	95% Critical H Value (KM-Log)	2.464
KM Standard Error of Mean (logged)	0.228	95% H-UCL (KM -Log)	0.00492
KM SD (logged)	0.879	95% Critical H Value (KM-Log)	2.464
KM Standard Error of Mean (logged)	0.228		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.00344	Mean in Log Scale	-6.021
SD in Original Scale	0.00348	SD in Log Scale	0.806
95% t UCL (Assumes normality)	0.00478	95% H-Stat UCL	0.0052

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	0.00544		

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,

then contact a statistician to correctly calculate UCLs.

When a data set follows an approximate distribution passing only one of the GOF tests,

it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Aquatic Vegetation_Port Phillip Bay Foreshore_PFOA

General Statistics

Total Number of Observations	20	Number of Distinct Observations	3
Number of Detects	1	Number of Non-Detects	19
Number of Distinct Detects	1	Number of Distinct Non-Detects	2

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Aquatic Vegetation_Port Phillip Bay Foreshore_PFOA was not processed!

Aquatic Vegetation_Port Phillip Bay Inshore_PFOA

General Statistics

Total Number of Observations	20	Number of Distinct Observations	4
Number of Detects	3	Number of Non-Detects	17
Number of Distinct Detects	3	Number of Distinct Non-Detects	2
Minimum Detect	3.0000E-4	Minimum Non-Detect	3.0000E-4
Maximum Detect	0.001	Maximum Non-Detect	0.005
Variance Detects	1.3000E-7	Percent Non-Detects	85%
Mean Detects	6.0000E-4	SD Detects	3.6056E-4
Median Detects	5.0000E-4	CV Detects	0.601
Skewness Detects	1.152	Kurtosis Detects	N/A
Mean of Logged Detects	-7.54	SD of Logged Detects	0.604

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.942	**Shapiro Wilk GOF Test**	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.276	**Lilliefors GOF Test**	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.6923E-4	KM Standard Error of Mean	6.4429E-5
90KM SD	1.8967E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	4.8064E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	4.7521E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	5.6252E-4	95% KM Chebyshev UCL	6.5007E-4
97.5% KM Chebyshev UCL	7.7159E-4	99% KM Chebyshev UCL	0.00101

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.273	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.637	Detected data appear Gamma Distributed at 5% Significance Level	

529	K-S Test Statistic	0.246	Kolmogorov-Smirnov GOF											
530	5% K-S Critical Value	0.434	Detected data appear Gamma Distributed at 5% Significance Level											
531	**Detected Data Not Gamma Distributed at 5% Significance Level**													
532														
533	**Gamma Statistics on Detected Data Only**													
534	k hat (MLE)	4.273	k star (bias corrected MLE)	N/A										
535	Theta hat (MLE)	1.4041E-4	Theta star (bias corrected MLE)	N/A										
536	nu hat (MLE)	25.64	nu star (bias corrected)	N/A										
537	Mean (detects)	6.0000E-4												
538														
539	**Gamma ROS Statistics using Imputed Non-Detects**													
540	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs													
541	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)													
542	For such situations, GROS method may yield incorrect values of UCLs and BTVs													
543	This is especially true when the sample size is small.													
544	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates													
545	Minimum	3.0000E-4	Mean	0.00859										
546	Maximum	0.01	Median	0.01										
547	SD	0.00345	CV	0.401										
548	k hat (MLE)	1.884	k star (bias corrected MLE)	1.635										
549	Theta hat (MLE)	0.00456	Theta star (bias corrected MLE)	0.00525										
550	nu hat (MLE)	75.37	nu star (bias corrected)	65.39										
551	Adjusted Level of Significance (β)	0.038												
552	Approximate Chi Square Value (65.39, α)	47.79	Adjusted Chi Square Value (65.39, β)	46.6										
553	95% Gamma Approximate UCL	0.0118	95% Gamma Adjusted UCL	N/A										
554														
555	**Estimates of Gamma Parameters using KM Estimates**													
556	Mean (KM)	3.6923E-4	SD (KM)	1.8967E-4										
557	Variance (KM)	3.5976E-8	SE of Mean (KM)	6.4429E-5										
558	k hat (KM)	3.789	k star (KM)	3.254										
559	nu hat (KM)	151.6	nu star (KM)	130.2										
560	theta hat (KM)	9.7436E-5	theta star (KM)	1.1346E-4										
561	80% gamma percentile (KM)	5.2157E-4	90% gamma percentile (KM)	6.4368E-4										
562	95% gamma percentile (KM)	7.5717E-4	99% gamma percentile (KM)	0.001										
563														
564	**Gamma Kaplan-Meier (KM) Statistics**													
565	Approximate Chi Square Value (130.18, α)	104.8	Adjusted Chi Square Value (130.18, β)	103										
566	95% KM Approximate Gamma UCL	4.5855E-4	95% KM Adjusted Gamma UCL	4.6654E-4										
567														
568	**Lognormal GOF Test on Detected Observations Only**													
569	Shapiro Wilk Test Statistic	0.992	**Shapiro Wilk GOF Test**											
570	10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level											
571	Lilliefors Test Statistic	0.207	**Lilliefors GOF Test**											
572	10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level											
573	**Detected Data appear Lognormal at 10% Significance Level**													
574	**Note GOF tests may be unreliable for small sample sizes**													
575														
576	**Lognormal ROS Statistics Using Imputed Non-Detects**													
577	Mean in Original Scale	1.5322E-4	Mean in Log Scale	-9.878										
578	SD in Original Scale	2.4650E-4	SD in Log Scale	1.601										
579	95% t UCL (assumes normality of ROS data)	2.4853E-4	95% Percentile Bootstrap UCL	2.5097E-4										
580	95% BCA Bootstrap UCL	2.8897E-4	95% Bootstrap t UCL	3.2845E-4										
581	95% H-UCL (Log ROS)	6.9284E-4												
582														
583	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**													
584	KM Mean (logged)	-7.98	KM Geo Mean	3.4230E-4										
585	KM SD (logged)	0.338	95% Critical H Value (KM-Log)	1.879										
586	KM Standard Error of Mean (logged)	0.115	95% H-UCL (KM -Log)	4.1924E-4										
587	KM SD (logged)	0.338	95% Critical H Value (KM-Log)	1.879										
588	KM Standard Error of Mean (logged)	0.115												
589	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**													
590														
591	**DL/2 Statistics**													
592	**DL/2 Normal**		**DL/2 Log-Transformed**											
593	Mean in Original Scale	0.00104	Mean in Log Scale	-7.63										
594	SD in Original Scale	0.00112	SD in Log Scale	1.325										
595	95% t UCL (Assumes normality)	0.00147	95% H-Stat UCL	0.00303										
596	**DL/2 is not a recommended method, provided for comparisons and historical reasons**													
597														
598	**Nonparametric Distribution Free UCL Statistics**													
599	**Detected Data appear Normal Distributed at 1% Significance Level**													
600														
601	**Suggested UCL to Use**													
602	95% KM (t) UCL	4.8064E-4												
603														
604	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
605	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.													
606	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.													
607														
608	**Benthic Invertebrate_Port Phillip Bay Foreshore_PFOS+PFHxS**													
609														
610	**General Statistics**													
611	Total Number of Observations	21	Number of Distinct Observations	17										
612	Number of Detects	16	Number of Non-Detects	5										
613	Number of Distinct Detects	16	Number of Distinct Non-Detects	1										
614	Minimum Detect	0.0013	Minimum Non-Detect	0.005										
615	Maximum Detect	0.49	Maximum Non-Detect	0.005										
616	Variance Detects	0.0159	Percent Non-Detects	23.81%										

	Mean Detects	0.0518	SD Detects 0.126
	Median Detects	0.0106	CV Detects 2.436
	Skewness Detects	3.275	Kurtosis Detects 11.01
	Mean of Logged Detects	-4.378	SD of Logged Detects 1.463
	Normal GOF Test on Detects Only		
	Shapiro Wilk Test Statistic	0.431	**Shapiro Wilk GOF Test**
	1% Shapiro Wilk Critical Value	0.844	Detected Data Not Normal at 1% Significance Level
	Lilliefors Test Statistic	0.47	**Lilliefors GOF Test**
	1% Lilliefors Critical Value	0.248	Detected Data Not Normal at 1% Significance Level
	Detected Data Not Normal at 1% Significance Level		
	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs		
	KM Mean	0.0399	KM Standard Error of Mean 0.0245
	90KM SD	0.109	95% KM (BCA) UCL 0.087
	95% KM (t) UCL	0.0821	95% KM (Percentile Bootstrap) UCL 0.0854
	95% KM (z) UCL	0.0802	95% KM Bootstrap t UCL 0.655
	90% KM Chebyshev UCL	0.113	95% KM Chebyshev UCL 0.147
	97.5% KM Chebyshev UCL	0.193	99% KM Chebyshev UCL 0.284
	Gamma GOF Tests on Detected Observations Only		
	A-D Test Statistic	2.298	**Anderson-Darling GOF Test**
	5% A-D Critical Value	0.806	Detected Data Not Gamma Distributed at 5% Significance Level
	K-S Test Statistic	0.376	**Kolmogorov-Smirnov GOF**
	5% K-S Critical Value	0.228	Detected Data Not Gamma Distributed at 5% Significance Level
	Detected Data Not Gamma Distributed at 5% Significance Level		
	Gamma Statistics on Detected Data Only		
	k hat (MLE)	0.455	k star (bias corrected MLE) 0.411
	Theta hat (MLE)	0.114	Theta star (bias corrected MLE) 0.126
	nu hat (MLE)	14.56	nu star (bias corrected) 13.16
	Mean (detects)	0.0518	
	Gamma ROS Statistics using Imputed Non-Detects		
	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs		
	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)		
	For such situations, GROS method may yield incorrect values of UCLs and BTVs		
	This is especially true when the sample size is small.		
	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates		
	Minimum	0.0013	Mean 0.0418
	Maximum	0.49	Median 0.01
	SD	0.111	CV 2.647
	k hat (MLE)	0.504	k star (bias corrected MLE) 0.464
	Theta hat (MLE)	0.083	Theta star (bias corrected MLE) 0.0902
	nu hat (MLE)	21.18	nu star (bias corrected) 19.49
	Adjusted Level of Significance (β)	0.0383	
	Approximate Chi Square Value (19.49, α)	10.47	Adjusted Chi Square Value (19.49, β) 9.968
	95% Gamma Approximate UCL	0.0778	95% Gamma Adjusted UCL 0.0818
	Estimates of Gamma Parameters using KM Estimates		
	Mean (KM)	0.0399	SD (KM) 0.109
	Variance (KM)	0.0118	SE of Mean (KM) 0.0245
	k hat (KM)	0.135	k star (KM) 0.147
	nu hat (KM)	5.653	nu star (KM) 6.178
	theta hat (KM)	0.296	theta star (KM) 0.271
	80% gamma percentile (KM)	0.0427	90% gamma percentile (KM) 0.118
	95% gamma percentile (KM)	0.22	99% gamma percentile (KM) 0.519
	Gamma Kaplan-Meier (KM) Statistics		
	Approximate Chi Square Value (6.18, α)	1.732	Adjusted Chi Square Value (6.18, β) 1.558
	95% KM Approximate Gamma UCL	0.142	95% KM Adjusted Gamma UCL 0.158
	Lognormal GOF Test on Detected Observations Only		
	Shapiro Wilk Test Statistic	0.868	**Shapiro Wilk GOF Test**
	10% Shapiro Wilk Critical Value	0.906	Detected Data Not Lognormal at 10% Significance Level
	Lilliefors Test Statistic	0.231	**Lilliefors GOF Test**
	10% Lilliefors Critical Value	0.196	Detected Data Not Lognormal at 10% Significance Level
	Detected Data Not Lognormal at 10% Significance Level		
	Lognormal ROS Statistics Using Imputed Non-Detects		
	Mean in Original Scale	0.0398	Mean in Log Scale -4.946
	SD in Original Scale	0.111	SD in Log Scale 1.67
	95% t UCL (assumes normality of ROS data)	0.0817	95% Percentile Bootstrap UCL 0.0837
	95% BCA Bootstrap UCL	0.117	95% Bootstrap t UCL 0.62
	95% H-UCL (Log ROS)	0.109	
	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution		
	KM Mean (logged)	-4.85	KM Geo Mean 0.00783
	KM SD (logged)	1.503	95% Critical H Value (KM-Log) 3.316
	KM Standard Error of Mean (logged)	0.344	95% H-UCL (KM -Log) 0.0739
	KM SD (logged)	1.503	95% Critical H Value (KM-Log) 3.316
	KM Standard Error of Mean (logged)	0.344	
	DL/2 Statistics		
	DL/2 Normal		**DL/2 Log-Transformed**
	Mean in Original Scale	0.04	Mean in Log Scale -4.762
	SD in Original Scale	0.111	SD in Log Scale 1.449
	95% t UCL (Assumes normality)	0.0819	95% H-Stat UCL 0.0696

705	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
706															
707	**Nonparametric Distribution Free UCL Statistics**														
708	**Data do not follow a Discernible Distribution**														
709															
710	**Suggested UCL to Use**														
711					95% KM (t) UCL	0.0821									
712															
713	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**														
714	**Please verify the data were collected from random locations.**														
715	**If the data were collected using judgmental or other non-random methods,**														
716	**then contact a statistician to correctly calculate UCLs.**														
717															
718	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
719	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
720	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
721															
722	**Benthic Invertebrate_Port Phillip Bay Inshore_PFOS+PFHxS**														
723															
724	**General Statistics**														
725					Total Number of Observations	41			Number of Distinct Observations	30					
726					Number of Detects	34			Number of Non-Detects	7					
727					Number of Distinct Detects	28			Number of Distinct Non-Detects	2					
728					Minimum Detect	6.0000E-4			Minimum Non-Detect	5.0000E-4					
729					Maximum Detect	0.125			Maximum Non-Detect	0.005					
730					Variance Detects	4.5543E-4			Percent Non-Detects	17.07%					
731					Mean Detects	0.00957			SD Detects	0.0213					
732					Median Detects	0.004			CV Detects	2.229					
733					Skewness Detects	5.088			Kurtosis Detects	27.85					
734					Mean of Logged Detects	-5.552			SD of Logged Detects	1.276					
735															
736	**Normal GOF Test on Detects Only**														
737					Shapiro Wilk Test Statistic	0.397			**Shapiro Wilk GOF Test**						
738					1% Shapiro Wilk Critical Value	0.908			Detected Data Not Normal at 1% Significance Level						
739					Lilliefors Test Statistic	0.337			**Lilliefors GOF Test**						
740					1% Lilliefors Critical Value	0.175			Detected Data Not Normal at 1% Significance Level						
741	**Detected Data Not Normal at 1% Significance Level**														
742															
743	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**														
744					KM Mean	0.00824			KM Standard Error of Mean	0.00307					
745					90KM SD	0.0194			95% KM (BCA) UCL	0.015					
746					95% KM (t) UCL	0.0134			95% KM (Percentile Bootstrap) UCL	0.0142					
747					95% KM (z) UCL	0.0133			95% KM Bootstrap t UCL	0.024					
748					90% KM Chebyshev UCL	0.0175			95% KM Chebyshev UCL	0.0216					
749					97.5% KM Chebyshev UCL	0.0274			99% KM Chebyshev UCL	0.0388					
750															
751	**Gamma GOF Tests on Detected Observations Only**														
752					A-D Test Statistic	1.274			**Anderson-Darling GOF Test**						
753					5% A-D Critical Value	0.795			Detected Data Not Gamma Distributed at 5% Significance Level						
754					K-S Test Statistic	0.161			**Kolmogorov-Smirnov GOF**						
755					5% K-S Critical Value	0.158			Detected Data Not Gamma Distributed at 5% Significance Level						
756	**Detected Data Not Gamma Distributed at 5% Significance Level**														
757															
758	**Gamma Statistics on Detected Data Only**														
759					k hat (MLE)	0.673			k star (bias corrected MLE)	0.633					
760					Theta hat (MLE)	0.0142			Theta star (bias corrected MLE)	0.0151					
761					nu hat (MLE)	45.77			nu star (bias corrected)	43.06					
762					Mean (detects)	0.00957									
763															
764	**Gamma ROS Statistics using Imputed Non-Detects**														
765	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
766	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
767	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
768	This is especially true when the sample size is small.														
769	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
770					Minimum	6.0000E-4			Mean	0.00965					
771					Maximum	0.125			Median	0.0056					
772					SD	0.0194			CV	2.01					
773					k hat (MLE)	0.793			k star (bias corrected MLE)	0.752					
774					Theta hat (MLE)	0.0122			Theta star (bias corrected MLE)	0.0128					
775					nu hat (MLE)	65.06			nu star (bias corrected)	61.63					
776					Adjusted Level of Significance (β)	0.0441									
777					Approximate Chi Square Value (61.63, α)	44.57			Adjusted Chi Square Value (61.63, β)	44.04					
778					95% Gamma Approximate UCL	0.0133			95% Gamma Adjusted UCL	0.0135					
779															
780	**Estimates of Gamma Parameters using KM Estimates**														
781					Mean (KM)	0.00824			SD (KM)	0.0194					
782					Variance (KM)	3.7556E-4			SE of Mean (KM)	0.00307					
783					k hat (KM)	0.181			k star (KM)	0.184					
784					nu hat (KM)	14.81			nu star (KM)	15.06					
785					theta hat (KM)	0.0456			theta star (KM)	0.0448					
786					80% gamma percentile (KM)	0.0103			90% gamma percentile (KM)	0.0249					
787					95% gamma percentile (KM)	0.0434			99% gamma percentile (KM)	0.095					
788															
789	**Gamma Kaplan-Meier (KM) Statistics**														
790					Approximate Chi Square Value (15.06, α)	7.303			Adjusted Chi Square Value (15.06, β)	7.105					
791					95% KM Approximate Gamma UCL	0.017			95% KM Adjusted Gamma UCL	0.0175					
792															

	Lognormal GOF Test on Detected Observations Only		
Shapiro Wilk Test Statistic	0.957	**Shapiro Wilk GOF Test**	
10% Shapiro Wilk Critical Value	0.943	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.103	**Lilliefors GOF Test**	
10% Lilliefors Critical Value	0.137	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00821	Mean in Log Scale	-5.773
SD in Original Scale	0.0196	SD in Log Scale	1.328
95% t UCL (assumes normality of ROS data)	0.0134	95% Percentile Bootstrap UCL	0.0138
95% BCA Bootstrap UCL	0.017	95% Bootstrap t UCL	0.0242
95% H-UCL (Log ROS)	0.0133		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.741	KM Geo Mean	0.00321
KM SD (logged)	1.262	95% Critical H Value (KM-Log)	2.655
KM Standard Error of Mean (logged)	0.207	95% H-UCL (KM -Log)	0.0121
KM SD (logged)	1.262	95% Critical H Value (KM-Log)	2.655
KM Standard Error of Mean (logged)	0.207		
DL/2 Statistics			
DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.00831	Mean in Log Scale	-5.683
SD in Original Scale	0.0196	SD in Log Scale	1.242
95% t UCL (Assumes normality)	0.0135	95% H-Stat UCL	0.0123
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Lognormal Distributed at 10% Significance Level			
Suggested UCL to Use			
KM H-UCL	0.0121		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
Benthic Invertebrate_Port Phillip Bay Foreshore_PFOS			
General Statistics			
Total Number of Observations	21	Number of Distinct Observations	16
Number of Detects	16	Number of Non-Detects	5
Number of Distinct Detects	15	Number of Distinct Non-Detects	1
Minimum Detect	0.0013	Minimum Non-Detect	0.005
Maximum Detect	0.36	Maximum Non-Detect	0.005
Variance Detects	0.00773	Percent Non-Detects	23.81%
Mean Detects	0.0328	SD Detects	0.0879
Median Detects	0.0091	CV Detects	2.679
Skewness Detects	3.9	Kurtosis Detects	15.4
Mean of Logged Detects	-4.604	SD of Logged Detects	1.257
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.355	**Shapiro Wilk GOF Test**	
1% Shapiro Wilk Critical Value	0.844	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.455	**Lilliefors GOF Test**	
1% Lilliefors Critical Value	0.248	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0254	KM Standard Error of Mean	0.017
90KM SD	0.0755	95% KM (BCA) UCL	0.0601
95% KM (t) UCL	0.0548	95% KM (Percentile Bootstrap) UCL	0.0587
95% KM (z) UCL	0.0534	95% KM Bootstrap t UCL	0.362
90% KM Chebyshev UCL	0.0765	95% KM Chebyshev UCL	0.0996
97.5% KM Chebyshev UCL	0.132	99% KM Chebyshev UCL	0.195
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	2.354	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.794	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.385	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.227	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.53	k star (bias corrected MLE)	0.473
Theta hat (MLE)	0.0619	Theta star (bias corrected MLE)	0.0695
nu hat (MLE)	16.97	nu star (bias corrected)	15.12
Mean (detects)	0.0328		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			

881	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
882	This is especially true when the sample size is small.														
883	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
884					Minimum	0.0013				Mean	0.0274				
885					Maximum	0.36				Median	0.01				
886					SD	0.0768				CV	2.804				
887					k hat (MLE)	0.612				k star (bias corrected MLE)	0.556				
888					Theta hat (MLE)	0.0447				Theta star (bias corrected MLE)	0.0492				
889					nu hat (MLE)	25.71				nu star (bias corrected)	23.37				
890					Adjusted Level of Significance (β)	0.0383									
891					Approximate Chi Square Value (23.37, α)	13.37				Adjusted Chi Square Value (23.37, β)	12.79				
892					95% Gamma Approximate UCL	0.0479				95% Gamma Adjusted UCL	0.05				
893															
894	**Estimates of Gamma Parameters using KM Estimates**														
895					Mean (KM)	0.0254				SD (KM)	0.0755				
896					Variance (KM)	0.0057				SE of Mean (KM)	0.017				
897					k hat (KM)	0.114				k star (KM)	0.129				
898					nu hat (KM)	4.77				nu star (KM)	5.422				
899					theta hat (KM)	0.224				theta star (KM)	0.197				
900					80% gamma percentile (KM)	0.0241				90% gamma percentile (KM)	0.0734				
901					95% gamma percentile (KM)	0.144				99% gamma percentile (KM)	0.354				
902															
903	**Gamma Kaplan-Meier (KM) Statistics**														
904					Approximate Chi Square Value (5.42, α)	1.352				Adjusted Chi Square Value (5.42, β)	1.204				
905					95% KM Approximate Gamma UCL	0.102				95% KM Adjusted Gamma UCL	0.115				
906															
907	**Lognormal GOF Test on Detected Observations Only**														
908					Shapiro Wilk Test Statistic	0.865				**Shapiro Wilk GOF Test**					
909					10% Shapiro Wilk Critical Value	0.906				Detected Data Not Lognormal at 10% Significance Level					
910					Lilliefors Test Statistic	0.249				**Lilliefors GOF Test**					
911					10% Lilliefors Critical Value	0.196				Detected Data Not Lognormal at 10% Significance Level					
912	**Detected Data Not Lognormal at 10% Significance Level**														
913															
914	**Lognormal ROS Statistics Using Imputed Non-Detects**														
915					Mean in Original Scale	0.0254				Mean in Log Scale	-5.089				
916					SD in Original Scale	0.0774				SD in Log Scale	1.43				
917					95% t UCL (assumes normality of ROS data)	0.0545				95% Percentile Bootstrap UCL	0.0581				
918					95% BCA Bootstrap UCL	0.079				95% Bootstrap t UCL	0.34				
919					95% H-UCL (Log ROS)	0.0477									
920															
921	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**														
922					KM Mean (logged)	-5.022				KM Geo Mean	0.00659				
923					KM SD (logged)	1.307				95% Critical H Value (KM-Log)	3.009				
924					KM Standard Error of Mean (logged)	0.3				95% H-UCL (KM -Log)	0.0373				
925					KM SD (logged)	1.307				95% Critical H Value (KM-Log)	3.009				
926					KM Standard Error of Mean (logged)	0.3									
927															
928	**DL/2 Statistics**														
929	**DL/2 Normal**									**DL/2 Log-Transformed**					
930					Mean in Original Scale	0.0256				Mean in Log Scale	-4.934				
931					SD in Original Scale	0.0773				SD in Log Scale	1.246				
932					95% t UCL (Assumes normality)	0.0547				95% H-Stat UCL	0.0352				
933	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
934															
935	**Nonparametric Distribution Free UCL Statistics**														
936	**Data do not follow a Discernible Distribution**														
937															
938	**Suggested UCL to Use**														
939					95% KM (t) UCL	0.0548									
940															
941	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**														
942	**Please verify the data were collected from random locations.**														
943	**If the data were collected using judgmental or other non-random methods,**														
944	**then contact a statistician to correctly calculate UCLs.**														
945															
946	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
947	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
948	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
949															
950	**Benthic Invertebrate_Port Phillip Bay Inshore_PFOS**														
951															
952	**General Statistics**														
953					Total Number of Observations	41				Number of Distinct Observations	29				
954					Number of Detects	35				Number of Non-Detects	6				
955					Number of Distinct Detects	29				Number of Distinct Non-Detects	1				
956					Minimum Detect	3.0000E-4				Minimum Non-Detect	0.005				
957					Maximum Detect	0.089				Maximum Non-Detect	0.005				
958					Variance Detects	2.2482E-4				Percent Non-Detects	14.63%				
959					Mean Detects	0.00722				SD Detects	0.015				
960					Median Detects	0.0037				CV Detects	2.077				
961					Skewness Detects	5.057				Kurtosis Detects	27.81				
962					Mean of Logged Detects	-5.749				SD of Logged Detects	1.23				
963															
964	**Normal GOF Test on Detects Only**														
965					Shapiro Wilk Test Statistic	0.415				**Shapiro Wilk GOF Test**					
966					1% Shapiro Wilk Critical Value	0.91				Detected Data Not Normal at 1% Significance Level					
967					Lilliefors Test Statistic	0.322				**Lilliefors GOF Test**					
968					1% Lilliefors Critical Value	0.172				Detected Data Not Normal at 1% Significance Level					

969	**Detected Data Not Normal at 1% Significance Level**													
970														
971	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**													
972	KM Mean					0.00645	KM Standard Error of Mean				0.00219			
973	90KM SD					0.0138	95% KM (BCA) UCL				0.0113			
974	95% KM (t) UCL					0.0101	95% KM (Percentile Bootstrap) UCL				0.0108			
975	95% KM (z) UCL					0.01	95% KM Bootstrap t UCL				0.0169			
976	90% KM Chebyshev UCL					0.013	95% KM Chebyshev UCL				0.016			
977	97.5% KM Chebyshev UCL					0.0201	99% KM Chebyshev UCL				0.0282			
978														
979	**Gamma GOF Tests on Detected Observations Only**													
980	A-D Test Statistic					1.145	**Anderson-Darling GOF Test**							
981	5% A-D Critical Value					0.789	Detected Data Not Gamma Distributed at 5% Significance Level							
982	K-S Test Statistic					0.156	**Kolmogorov-Smirnov GOF**							
983	5% K-S Critical Value					0.155	Detected Data Not Gamma Distributed at 5% Significance Level							
984	**Detected Data Not Gamma Distributed at 5% Significance Level**													
985														
986	**Gamma Statistics on Detected Data Only**													
987	k hat (MLE)					0.734	k star (bias corrected MLE)				0.69			
988	Theta hat (MLE)					0.00984	Theta star (bias corrected MLE)				0.0105			
989	nu hat (MLE)					51.38	nu star (bias corrected)				48.31			
990	Mean (detects)					0.00722								
991														
992	**Gamma ROS Statistics using Imputed Non-Detects**													
993	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs													
994	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)													
995	For such situations, GROS method may yield incorrect values of UCLs and BTVs													
996	This is especially true when the sample size is small.													
997	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates													
998	Minimum					3.0000E-4	Mean				0.00763			
999	Maximum					0.089	Median				0.0042			
1000	SD					0.0139	CV				1.817			
1001	k hat (MLE)					0.836	k star (bias corrected MLE)				0.792			
1002	Theta hat (MLE)					0.00912	Theta star (bias corrected MLE)				0.00964			
1003	nu hat (MLE)					68.59	nu star (bias corrected)				64.91			
1004	Adjusted Level of Significance (β)					0.0441								
1005	Approximate Chi Square Value (64.91, α)					47.37	Adjusted Chi Square Value (64.91, β)				46.82			
1006	95% Gamma Approximate UCL					0.0105	95% Gamma Adjusted UCL				0.0106			
1007														
1008	**Estimates of Gamma Parameters using KM Estimates**													
1009	Mean (KM)					0.00645	SD (KM)				0.0138			
1010	Variance (KM)					1.9016E-4	SE of Mean (KM)				0.00219			
1011	k hat (KM)					0.219	k star (KM)				0.219			
1012	nu hat (KM)					17.93	nu star (KM)				17.95			
1013	theta hat (KM)					0.0295	theta star (KM)				0.0295			
1014	80% gamma percentile (KM)					0.00888	90% gamma percentile (KM)				0.0195			
1015	95% gamma percentile (KM)					0.0324	99% gamma percentile (KM)				0.0676			
1016														
1017	**Gamma Kaplan-Meier (KM) Statistics**													
1018	Approximate Chi Square Value (17.95, α)					9.356	Adjusted Chi Square Value (17.95, β)				9.129			
1019	95% KM Approximate Gamma UCL					0.0124	95% KM Adjusted Gamma UCL				0.0127			
1020														
1021	**Lognormal GOF Test on Detected Observations Only**													
1022	Shapiro Wilk Test Statistic					0.974	**Shapiro Wilk GOF Test**							
1023	10% Shapiro Wilk Critical Value					0.944	Detected Data appear Lognormal at 10% Significance Level							
1024	Lilliefors Test Statistic					0.0921	**Lilliefors GOF Test**							
1025	10% Lilliefors Critical Value					0.136	Detected Data appear Lognormal at 10% Significance Level							
1026	**Detected Data appear Lognormal at 10% Significance Level**													
1027														
1028	**Lognormal ROS Statistics Using Imputed Non-Detects**													
1029	Mean in Original Scale					0.00643	Mean in Log Scale				-5.859			
1030	SD in Original Scale					0.014	SD in Log Scale				1.191			
1031	95% t UCL (assumes normality of ROS data)					0.0101	95% Percentile Bootstrap UCL				0.0103			
1032	95% BCA Bootstrap UCL					0.0127	95% Bootstrap t UCL				0.017			
1033	95% H-UCL (Log ROS)					0.0094								
1034														
1035	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**													
1036	KM Mean (logged)					-5.861	KM Geo Mean				0.00285			
1037	KM SD (logged)					1.191	95% Critical H Value (KM-Log)				2.569			
1038	KM Standard Error of Mean (logged)					0.196	95% H-UCL (KM -Log)				0.00938			
1039	KM SD (logged)					1.191	95% Critical H Value (KM-Log)				2.569			
1040	KM Standard Error of Mean (logged)					0.196								
1041														
1042	**DL/2 Statistics**													
1043	**DL/2 Normal**						**DL/2 Log-Transformed**							
1044	Mean in Original Scale					0.00653	Mean in Log Scale				-5.784			
1045	SD in Original Scale					0.0139	SD in Log Scale				1.137			
1046	95% t UCL (Assumes normality)					0.0102	95% H-Stat UCL				0.00921			
1047	**DL/2 is not a recommended method, provided for comparisons and historical reasons**													
1048														
1049	**Nonparametric Distribution Free UCL Statistics**													
1050	**Detected Data appear Lognormal Distributed at 10% Significance Level**													
1051														
1052	**Suggested UCL to Use**													
1053	KM H-UCL					0.00938								
1054														
1055	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**													
1056	**Please verify the data were collected from random locations.**													

1057	**If the data were collected using judgmental or other non-random methods,**													
1058	**then contact a statistician to correctly calculate UCLs.**													
1059														
1060	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
1061	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.													
1062	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.													
1063														
1064	**Benthic Invertebrate_Port Phillip Bay Foreshore_PFOA**													
1065														
1066	**General Statistics**													
1067	Total Number of Observations	21					Number of Distinct Observations	10						
1068	Number of Detects	8					Number of Non-Detects	13						
1069	Number of Distinct Detects	8					Number of Distinct Non-Detects	2						
1070	Minimum Detect	6.0000E-4					Minimum Non-Detect	3.0000E-4						
1071	Maximum Detect	0.051					Maximum Non-Detect	0.005						
1072	Variance Detects	3.0235E-4					Percent Non-Detects	61.9%						
1073	Mean Detects	0.00806					SD Detects	0.0174						
1074	Median Detects	0.0019					CV Detects	2.157						
1075	Skewness Detects	2.803					Kurtosis Detects	7.892						
1076	Mean of Logged Detects	-6.014					SD of Logged Detects	1.386						
1077														
1078	**Normal GOF Test on Detects Only**													
1079	Shapiro Wilk Test Statistic	0.48					**Shapiro Wilk GOF Test**							
1080	1% Shapiro Wilk Critical Value	0.749					Detected Data Not Normal at 1% Significance Level							
1081	Lilliefors Test Statistic	0.47					**Lilliefors GOF Test**							
1082	1% Lilliefors Critical Value	0.333					Detected Data Not Normal at 1% Significance Level							
1083	**Detected Data Not Normal at 1% Significance Level**													
1084														
1085	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**													
1086	KM Mean	0.00355					KM Standard Error of Mean	0.0025						
1087	90KM SD	0.0107					95% KM (BCA) UCL	0.00854						
1088	95% KM (t) UCL	0.00786					95% KM (Percentile Bootstrap) UCL	0.00824						
1089	95% KM (z) UCL	0.00766					95% KM Bootstrap t UCL	0.0305						
1090	90% KM Chebyshev UCL	0.011					95% KM Chebyshev UCL	0.0144						
1091	97.5% KM Chebyshev UCL	0.0191					99% KM Chebyshev UCL	0.0284						
1092														
1093	**Gamma GOF Tests on Detected Observations Only**													
1094	A-D Test Statistic	1.197					**Anderson-Darling GOF Test**							
1095	5% A-D Critical Value	0.76					Detected Data Not Gamma Distributed at 5% Significance Level							
1096	K-S Test Statistic	0.372					**Kolmogorov-Smirnov GOF**							
1097	5% K-S Critical Value	0.308					Detected Data Not Gamma Distributed at 5% Significance Level							
1098	**Detected Data Not Gamma Distributed at 5% Significance Level**													
1099														
1100	**Gamma Statistics on Detected Data Only**													
1101	k hat (MLE)	0.528					k star (bias corrected MLE)	0.413						
1102	Theta hat (MLE)	0.0153					Theta star (bias corrected MLE)	0.0195						
1103	nu hat (MLE)	8.446					nu star (bias corrected)	6.612						
1104	Mean (detects)	0.00806												
1105														
1106	**Gamma ROS Statistics using Imputed Non-Detects**													
1107	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs													
1108	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)													
1109	For such situations, GROS method may yield incorrect values of UCLs and BTVs													
1110	This is especially true when the sample size is small.													
1111	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates													
1112	Minimum	6.0000E-4					Mean	0.00927						
1113	Maximum	0.051					Median	0.01						
1114	SD	0.0103					CV	1.115						
1115	k hat (MLE)	1.227					k star (bias corrected MLE)	1.083						
1116	Theta hat (MLE)	0.00755					Theta star (bias corrected MLE)	0.00856						
1117	nu hat (MLE)	51.53					nu star (bias corrected)	45.5						
1118	Adjusted Level of Significance (β)	0.0383												
1119	Approximate Chi Square Value (45.50, α)	31.02					Adjusted Chi Square Value (45.50, β)	30.11						
1120	95% Gamma Approximate UCL	0.0136					95% Gamma Adjusted UCL	0.014						
1121														
1122	**Estimates of Gamma Parameters using KM Estimates**													
1123	Mean (KM)	0.00355					SD (KM)	0.0107						
1124	Variance (KM)	1.1390E-4					SE of Mean (KM)	0.0025						
1125	k hat (KM)	0.111					k star (KM)	0.127						
1126	nu hat (KM)	4.646					nu star (KM)	5.315						
1127	theta hat (KM)	0.0321					theta star (KM)	0.028						
1128	80% gamma percentile (KM)	0.0033					90% gamma percentile (KM)	0.0102						
1129	95% gamma percentile (KM)	0.0201					99% gamma percentile (KM)	0.05						
1130														
1131	**Gamma Kaplan-Meier (KM) Statistics**													
1132	Approximate Chi Square Value (5.32, α)	1.301					Adjusted Chi Square Value (5.32, β)	1.156						
1133	95% KM Approximate Gamma UCL	0.0145					95% KM Adjusted Gamma UCL	0.0163						
1134														
1135	**Lognormal GOF Test on Detected Observations Only**													
1136	Shapiro Wilk Test Statistic	0.843					**Shapiro Wilk GOF Test**							
1137	10% Shapiro Wilk Critical Value	0.851					Detected Data Not Lognormal at 10% Significance Level							
1138	Lilliefors Test Statistic	0.243					**Lilliefors GOF Test**							
1139	10% Lilliefors Critical Value	0.265					Detected Data appear Lognormal at 10% Significance Level							
1140	**Detected Data appear Approximate Lognormal at 10% Significance Level**													
1141	**Note GOF tests may be unreliable for small sample sizes**													
1142														
1143	**Lognormal ROS Statistics Using Imputed Non-Detects**													
1144	Mean in Original Scale	0.00346					Mean in Log Scale	-7.535						

1145					SD in Original Scale	0.011					SD in Log Scale	1.884				
1146					95% t UCL (assumes normality of ROS data)	0.00759					95% Percentile Bootstrap UCL	0.00813				
1147					95% BCA Bootstrap UCL	0.0109					95% Bootstrap t UCL	0.0323				
1148					95% H-UCL (Log ROS)	0.0166										
1149																
1150					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1151					KM Mean (logged)	-7.014					KM Geo Mean	8.9932E-4				
1152					KM SD (logged)	1.297					95% Critical H Value (KM-Log)	2.994				
1153					KM Standard Error of Mean (logged)	0.342					95% H-UCL (KM -Log)	0.00497				
1154					KM SD (logged)	1.297					95% Critical H Value (KM-Log)	2.994				
1155					KM Standard Error of Mean (logged)	0.342										
1156																
1157					**DL/2 Statistics**											
1158					**DL/2 Normal**						**DL/2 Log-Transformed**					
1159					Mean in Original Scale	0.00395					Mean in Log Scale	-6.804				
1160					SD in Original Scale	0.0108					SD in Log Scale	1.534				
1161					95% t UCL (Assumes normality)	0.00803					95% H-Stat UCL	0.0114				
1162					**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1163																
1164					**Nonparametric Distribution Free UCL Statistics**											
1165					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
1166																
1167					**Suggested UCL to Use**											
1168					KM H-UCL	0.00497										
1169																
1170					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1171					**Please verify the data were collected from random locations.**											
1172					**If the data were collected using judgmental or other non-random methods,**											
1173					**then contact a statistician to correctly calculate UCLs.**											
1174																
1175					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1176					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1177					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1178																
1179	**Benthic Invertebrate_Port Phillip Bay Inshore_PFOA**															
1180																
1181					**General Statistics**											
1182					Total Number of Observations	41					Number of Distinct Observations	7				
1183					Number of Detects	5					Number of Non-Detects	36				
1184					Number of Distinct Detects	5					Number of Distinct Non-Detects	2				
1185					Minimum Detect	5.0000E-4					Minimum Non-Detect	3.0000E-4				
1186					Maximum Detect	0.0022					Maximum Non-Detect	0.005				
1187					Variance Detects	5.0200E-7					Percent Non-Detects	87.8%				
1188					Mean Detects	0.00132					SD Detects	7.0852E-4				
1189					Median Detects	0.0015					CV Detects	0.537				
1190					Skewness Detects	-0.0557					Kurtosis Detects	-1.941				
1191					Mean of Logged Detects	-6.773					SD of Logged Detects	0.629				
1192																
1193					**Normal GOF Test on Detects Only**											
1194					Shapiro Wilk Test Statistic	0.936					**Shapiro Wilk GOF Test**					
1195					1% Shapiro Wilk Critical Value	0.686					Detected Data appear Normal at 1% Significance Level					
1196					Lilliefors Test Statistic	0.209					**Lilliefors GOF Test**					
1197					1% Lilliefors Critical Value	0.396					Detected Data appear Normal at 1% Significance Level					
1198					**Detected Data appear Normal at 1% Significance Level**											
1199					**Note GOF tests may be unreliable for small sample sizes**											
1200																
1201					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1202					KM Mean	4.5938E-4					KM Standard Error of Mean	8.8369E-5				
1203					90KM SD	4.4712E-4					95% KM (BCA) UCL	6.0714E-4				
1204					95% KM (t) UCL	6.0818E-4					95% KM (Percentile Bootstrap) UCL	6.0294E-4				
1205					95% KM (z) UCL	6.0473E-4					95% KM Bootstrap t UCL	5.8260E-4				
1206					90% KM Chebyshev UCL	7.2448E-4					95% KM Chebyshev UCL	8.4457E-4				
1207					97.5% KM Chebyshev UCL	0.00101					99% KM Chebyshev UCL	0.00134				
1208					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1209																
1210					**Gamma GOF Tests on Detected Observations Only**											
1211					A-D Test Statistic	0.349					**Anderson-Darling GOF Test**					
1212					5% A-D Critical Value	0.682					Detected data appear Gamma Distributed at 5% Significance Level					
1213					K-S Test Statistic	0.264					**Kolmogorov-Smirnov GOF**					
1214					5% K-S Critical Value	0.359					Detected data appear Gamma Distributed at 5% Significance Level					
1215					**Detected data appear Gamma Distributed at 5% Significance Level**											
1216					**Note GOF tests may be unreliable for small sample sizes**											
1217																
1218					**Gamma Statistics on Detected Data Only**											
1219					k hat (MLE)	3.663					k star (bias corrected MLE)	1.598				
1220					Theta hat (MLE)	3.6041E-4					Theta star (bias corrected MLE)	8.2586E-4				
1221					nu hat (MLE)	36.63					nu star (bias corrected)	15.98				
1222					Mean (detects)	0.00132										
1223																
1224					**Gamma ROS Statistics using Imputed Non-Detects**											
1225					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1226					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1227					For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1228					This is especially true when the sample size is small.											
1229					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1230					Minimum	5.0000E-4					Mean	0.00894				
1231					Maximum	0.01					Median	0.01				
1232					SD	0.00288					CV	0.323				

k hat (MLE)	3.437	k star (bias corrected MLE)	3.202
Theta hat (MLE)	0.0026	Theta star (bias corrected MLE)	0.00279
nu hat (MLE)	281.9	nu star (bias corrected)	262.6
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (262.57, α)	226	Adjusted Chi Square Value (262.57, β)	224.8
95% Gamma Approximate UCL	0.0104	95% Gamma Adjusted UCL	0.0104

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	4.5938E-4	SD (KM)	4.4712E-4
Variance (KM)	1.9991E-7	SE of Mean (KM)	8.8369E-5
k hat (KM)	1.056	k star (KM)	0.995
nu hat (KM)	86.56	nu star (KM)	81.56
theta hat (KM)	4.3518E-4	theta star (KM)	4.6186E-4
80% gamma percentile (KM)	7.3966E-4	90% gamma percentile (KM)	0.00106
95% gamma percentile (KM)	0.00138	99% gamma percentile (KM)	0.00212

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (81.56, α)	61.75	Adjusted Chi Square Value (81.56, β)	61.12
95% KM Approximate Gamma UCL	6.0676E-4	95% KM Adjusted Gamma UCL	6.1301E-4

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.907	**Shapiro Wilk GOF Test**	
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.266	**Lilliefors GOF Test**	
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level	

Detected Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.6716E-4	Mean in Log Scale	-9.42
SD in Original Scale	4.7985E-4	SD in Log Scale	1.634
95% t UCL (assumes normality of ROS data)	3.9334E-4	95% Percentile Bootstrap UCL	3.9693E-4
95% BCA Bootstrap UCL	4.2431E-4	95% Bootstrap t UCL	4.7077E-4
95% H-UCL (Log ROS)	6.9169E-4		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-7.903	KM Geo Mean	3.6981E-4
KM SD (logged)	0.535	95% Critical H Value (KM-Log)	1.921
KM Standard Error of Mean (logged)	0.106	95% H-UCL (KM -Log)	5.0185E-4
KM SD (logged)	0.535	95% Critical H Value (KM-Log)	1.921
KM Standard Error of Mean (logged)	0.106		

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	8.0854E-4	Mean in Log Scale	-7.939
SD in Original Scale	0.00101	SD in Log Scale	1.253
95% t UCL (Assumes normality)	0.00107	95% H-Stat UCL	0.00132

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL	6.0818E-4		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Pelagic Invertebrate_Port Phillip Bay Inshore_PFOS+PFHxS

General Statistics

Total Number of Observations	5	Number of Distinct Observations	4
Number of Detects	2	Number of Non-Detects	3
Number of Distinct Detects	2	Number of Distinct Non-Detects	2
Minimum Detect	0.0104	Minimum Non-Detect	5.0000E-4
Maximum Detect	0.0227	Maximum Non-Detect	0.005
Variance Detects	7.5645E-5	Percent Non-Detects	60%
Mean Detects	0.0166	SD Detects	0.0087
Median Detects	0.0166	CV Detects	0.526
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-4.176	SD of Logged Detects	0.552

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,

refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,

but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).

The Chebyshev UCL often results in gross overestimates of the mean.

Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

1321	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**													
1322					KM Mean	0.00692				KM Standard Error of Mean	0.00555			
1323					90KM SD	0.00877				95% KM (BCA) UCL	N/A			
1324					95% KM (t) UCL	0.0187				95% KM (Percentile Bootstrap) UCL	N/A			
1325					95% KM (z) UCL	0.016				95% KM Bootstrap t UCL	N/A			
1326					90% KM Chebyshev UCL	0.0236				95% KM Chebyshev UCL	0.0311			
1327					97.5% KM Chebyshev UCL	0.0416				99% KM Chebyshev UCL	0.0621			
1328														
1329	**Gamma GOF Tests on Detected Observations Only**													
1330	**Not Enough Data to Perform GOF Test**													
1331														
1332	**Gamma Statistics on Detected Data Only**													
1333					k hat (MLE)	6.892				k star (bias corrected MLE)	N/A			
1334					Theta hat (MLE)	0.0024				Theta star (bias corrected MLE)	N/A			
1335					nu hat (MLE)	27.57				nu star (bias corrected)	N/A			
1336					Mean (detects)	0.0166								
1337														
1338	**Estimates of Gamma Parameters using KM Estimates**													
1339					Mean (KM)	0.00692				SD (KM)	0.00877			
1340					Variance (KM)	7.6954E-5				SE of Mean (KM)	0.00555			
1341					k hat (KM)	0.622				k star (KM)	0.382			
1342					nu hat (KM)	6.223				nu star (KM)	3.822			
1343					theta hat (KM)	0.0111				theta star (KM)	0.0181			
1344					80% gamma percentile (KM)	0.0111				90% gamma percentile (KM)	0.0197			
1345					95% gamma percentile (KM)	0.0292				99% gamma percentile (KM)	0.0532			
1346														
1347	**Gamma Kaplan-Meier (KM) Statistics**													
1348										Adjusted Level of Significance (β)	0.0086			
1349					Approximate Chi Square Value (3.82, α)	0.653				Adjusted Chi Square Value (3.82, β)	0.263			
1350					95% KM Approximate Gamma UCL	0.0405				95% KM Adjusted Gamma UCL	0.101			
1351														
1352	**Lognormal GOF Test on Detected Observations Only**													
1353	**Not Enough Data to Perform GOF Test**													
1354														
1355	**Lognormal ROS Statistics Using Imputed Non-Detects**													
1356					Mean in Original Scale	0.00766				Mean in Log Scale	-5.526			
1357					SD in Original Scale	0.00922				SD in Log Scale	1.306			
1358					95% t UCL (assumes normality of ROS data)	0.0165				95% Percentile Bootstrap UCL	0.0142			
1359					95% BCA Bootstrap UCL	0.016				95% Bootstrap t UCL	0.08			
1360					95% H-UCL (Log ROS)	0.555								
1361														
1362	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**													
1363					KM Mean (logged)	-6.231				KM Geo Mean	0.00197			
1364					KM SD (logged)	1.696				95% Critical H Value (KM-Log)	8.005			
1365					KM Standard Error of Mean (logged)	1.073				95% H-UCL (KM -Log)	7.362			
1366					KM SD (logged)	1.696				95% Critical H Value (KM-Log)	8.005			
1367					KM Standard Error of Mean (logged)	1.073								
1368														
1369	**DL/2 Statistics**													
1370	**DL/2 Normal**									**DL/2 Log-Transformed**				
1371					Mean in Original Scale	0.00767				Mean in Log Scale	-5.726			
1372					SD in Original Scale	0.00924				SD in Log Scale	1.721			
1373					95% t UCL (Assumes normality)	0.0165				95% H-Stat UCL	15.51			
1374	**DL/2 is not a recommended method, provided for comparisons and historical reasons**													
1375														
1376	**Nonparametric Distribution Free UCL Statistics**													
1377	**Data do not follow a Discernible Distribution**													
1378														
1379	**Suggested UCL to Use**													
1380					Recommendation cannot be provided									
1381														
1382	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
1383	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.													
1384	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.													
1385														
1386	**Pelagic Invertebrate_Port Phillip Bay Inshore_PFOS**													
1387														
1388	**General Statistics**													
1389					Total Number of Observations	5				Number of Distinct Observations	4			
1390					Number of Detects	2				Number of Non-Detects	3			
1391					Number of Distinct Detects	2				Number of Distinct Non-Detects	2			
1392					Minimum Detect	0.0098				Minimum Non-Detect	3.0000E-4			
1393					Maximum Detect	0.021				Maximum Non-Detect	0.005			
1394					Variance Detects	6.2720E-5				Percent Non-Detects	60%			
1395					Mean Detects	0.0154				SD Detects	0.00792			
1396					Median Detects	0.0154				CV Detects	0.514			
1397					Skewness Detects	N/A				Kurtosis Detects	N/A			
1398					Mean of Logged Detects	-4.244				SD of Logged Detects	0.539			
1399														
1400	**Warning: Data set has only 2 Detected Values.**													
1401	**This is not enough to compute meaningful or reliable statistics and estimates.**													
1402														
1403														
1404	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**													
1405	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**													
1406	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**													
1407	**The Chebyshev UCL often results in gross overestimates of the mean.**													
1408	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**													

Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00634	KM Standard Error of Mean	0.00519
90KM SD	0.0082	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.0174	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.0149	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.0219	95% KM Chebyshev UCL	0.029
97.5% KM Chebyshev UCL	0.0387	99% KM Chebyshev UCL	0.058
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	7.213	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.00213	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	28.85	nu star (bias corrected)	N/A
Mean (detects)	0.0154		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00634	SD (KM)	0.0082
Variance (KM)	6.7266E-5	SE of Mean (KM)	0.00519
k hat (KM)	0.598	k star (KM)	0.372
nu hat (KM)	5.976	nu star (KM)	3.724
theta hat (KM)	0.0106	theta star (KM)	0.017
80% gamma percentile (KM)	0.0101	90% gamma percentile (KM)	0.0181
95% gamma percentile (KM)	0.027	99% gamma percentile (KM)	0.0495
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0086
Approximate Chi Square Value (3.72, α)	0.616	Adjusted Chi Square Value (3.72, β)	0.245
95% KM Approximate Gamma UCL	0.0383	95% KM Adjusted Gamma UCL	0.0964
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00718	Mean in Log Scale	-5.563
SD in Original Scale	0.0085	SD in Log Scale	1.276
95% t UCL (assumes normality of ROS data)	0.0153	95% Percentile Bootstrap UCL	0.0131
95% BCA Bootstrap UCL	0.0151	95% Bootstrap t UCL	0.0713
95% H-UCL (Log ROS)	0.428		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.565	KM Geo Mean	0.00141
KM SD (logged)	1.91	95% Critical H Value (KM-Log)	8.976
KM Standard Error of Mean (logged)	1.208	95% H-UCL (KM -Log)	46.12
KM SD (logged)	1.91	95% Critical H Value (KM-Log)	8.976
KM Standard Error of Mean (logged)	1.208		
DL/2 Statistics			
DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.00719	Mean in Log Scale	-5.855
SD in Original Scale	0.00853	SD in Log Scale	1.885
95% t UCL (Assumes normality)	0.0153	95% H-Stat UCL	72.13
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
Recommendation cannot be provided			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Pelagic Invertebrate_Port Phillip Bay Inshore_PFOA

General Statistics			
Total Number of Observations	5	Number of Distinct Observations	3
Number of Detects	1	Number of Non-Detects	4
Number of Distinct Detects	1	Number of Distinct Non-Detects	2

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Pelagic Invertebrate_Port Phillip Bay Inshore_PFOA was not processed!

Prey Fish_Port Phillip Bay Inshore_PFOS+PFHxS

General Statistics			
Total Number of Observations	29	Number of Distinct Observations	24
Number of Detects	27	Number of Non-Detects	2
Number of Distinct Detects	23	Number of Distinct Non-Detects	1

1497					Minimum Detect	0.0012					Minimum Non-Detect	0.005				
1498					Maximum Detect	0.086					Maximum Non-Detect	0.005				
1499					Variance Detects	3.4488E-4					Percent Non-Detects	6.897%				
1500					Mean Detects	0.0141					SD Detects	0.0186				
1501					Median Detects	0.0094					CV Detects	1.314				
1502					Skewness Detects	2.955					Kurtosis Detects	9.367				
1503					Mean of Logged Detects	-4.788					SD of Logged Detects	1.02				
1504																
1505					**Normal GOF Test on Detects Only**											
1506					Shapiro Wilk Test Statistic	0.618					**Shapiro Wilk GOF Test**					
1507					1% Shapiro Wilk Critical Value	0.894					Detected Data Not Normal at 1% Significance Level					
1508					Lilliefors Test Statistic	0.276					**Lilliefors GOF Test**					
1509					1% Lilliefors Critical Value	0.194					Detected Data Not Normal at 1% Significance Level					
1510					**Detected Data Not Normal at 1% Significance Level**											
1511																
1512					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1513					KM Mean	0.0134					KM Standard Error of Mean	0.00337				
1514					90KM SD	0.0178					95% KM (BCA) UCL	0.0198				
1515					95% KM (t) UCL	0.0191					95% KM (Percentile Bootstrap) UCL	0.0193				
1516					95% KM (z) UCL	0.0189					95% KM Bootstrap t UCL	0.0268				
1517					90% KM Chebyshev UCL	0.0235					95% KM Chebyshev UCL	0.0281				
1518					97.5% KM Chebyshev UCL	0.0344					99% KM Chebyshev UCL	0.0469				
1519																
1520					**Gamma GOF Tests on Detected Observations Only**											
1521					A-D Test Statistic	0.818					**Anderson-Darling GOF Test**					
1522					5% A-D Critical Value	0.772					Detected Data Not Gamma Distributed at 5% Significance Level					
1523					K-S Test Statistic	0.172					**Kolmogorov-Smirnov GOF**					
1524					5% K-S Critical Value	0.173					Detected data appear Gamma Distributed at 5% Significance Level					
1525					**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
1526																
1527					**Gamma Statistics on Detected Data Only**											
1528					k hat (MLE)	1.082					k star (bias corrected MLE)	0.987				
1529					Theta hat (MLE)	0.0131					Theta star (bias corrected MLE)	0.0143				
1530					nu hat (MLE)	58.43					nu star (bias corrected)	53.27				
1531					Mean (detects)	0.0141										
1532																
1533					**Gamma ROS Statistics using Imputed Non-Detects**											
1534					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1535					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1536					For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1537					This is especially true when the sample size is small.											
1538					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1539					Minimum	0.0012					Mean	0.0138				
1540					Maximum	0.086					Median	0.0095				
1541					SD	0.0179					CV	1.295				
1542					k hat (MLE)	1.147					k star (bias corrected MLE)	1.051				
1543					Theta hat (MLE)	0.0121					Theta star (bias corrected MLE)	0.0132				
1544					nu hat (MLE)	66.51					nu star (bias corrected)	60.96				
1545					Adjusted Level of Significance (β)	0.0407										
1546					Approximate Chi Square Value (60.96, α)	44.01					Adjusted Chi Square Value (60.96, β)	43.15				
1547					95% Gamma Approximate UCL	0.0192					95% Gamma Adjusted UCL	0.0196				
1548																
1549					**Estimates of Gamma Parameters using KM Estimates**											
1550					Mean (KM)	0.0134					SD (KM)	0.0178				
1551					Variance (KM)	3.1711E-4					SE of Mean (KM)	0.00337				
1552					k hat (KM)	0.564					k star (KM)	0.528				
1553					nu hat (KM)	32.69					nu star (KM)	30.64				
1554					theta hat (KM)	0.0237					theta star (KM)	0.0253				
1555					80% gamma percentile (KM)	0.022					90% gamma percentile (KM)	0.0358				
1556					95% gamma percentile (KM)	0.0504					99% gamma percentile (KM)	0.0861				
1557																
1558					**Gamma Kaplan-Meier (KM) Statistics**											
1559					Approximate Chi Square Value (30.64, α)	19					Adjusted Chi Square Value (30.64, β)	18.45				
1560					95% KM Approximate Gamma UCL	0.0216					95% KM Adjusted Gamma UCL	0.0222				
1561																
1562					**Lognormal GOF Test on Detected Observations Only**											
1563					Shapiro Wilk Test Statistic	0.973					**Shapiro Wilk GOF Test**					
1564					10% Shapiro Wilk Critical Value	0.935					Detected Data appear Lognormal at 10% Significance Level					
1565					Lilliefors Test Statistic	0.0962					**Lilliefors GOF Test**					
1566					10% Lilliefors Critical Value	0.153					Detected Data appear Lognormal at 10% Significance Level					
1567					**Detected Data appear Lognormal at 10% Significance Level**											
1568																
1569					**Lognormal ROS Statistics Using Imputed Non-Detects**											
1570					Mean in Original Scale	0.0134					Mean in Log Scale	-4.862				
1571					SD in Original Scale	0.0181					SD in Log Scale	1.023				
1572					95% t UCL (assumes normality of ROS data)	0.0191					95% Percentile Bootstrap UCL	0.0192				
1573					95% BCA Bootstrap UCL	0.021					95% Bootstrap t UCL	0.0266				
1574					95% H-UCL (Log ROS)	0.0212										
1575																
1576					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1577					KM Mean (logged)	-4.863					KM Geo Mean	0.00773				
1578					KM SD (logged)	1.012					95% Critical H Value (KM-Log)	2.482				
1579					KM Standard Error of Mean (logged)	0.193					95% H-UCL (KM -Log)	0.0207				
1580					KM SD (logged)	1.012					95% Critical H Value (KM-Log)	2.482				
1581					KM Standard Error of Mean (logged)	0.193										
1582																
1583					**DL/2 Statistics**											
1584					**DL/2 Normal**						**DL/2 Log-Transformed**					

	Mean in Original Scale		0.0133			Mean in Log Scale		-4.871							
	SD in Original Scale		0.0181			SD in Log Scale		1.031							
	95% t UCL (Assumes normality)		0.0191			95% H-Stat UCL		0.0212							
	DL/2 is not a recommended method, provided for comparisons and historical reasons														
	Nonparametric Distribution Free UCL Statistics														
	Detected Data appear Approximate Gamma Distributed at 5% Significance Level														
	Suggested UCL to Use														
	95% KM Adjusted Gamma UCL		0.0222												
	The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.														
	Please verify the data were collected from random locations.														
	If the data were collected using judgmental or other non-random methods,														
	then contact a statistician to correctly calculate UCLs.														
	When a data set follows an approximate distribution passing only one of the GOF tests,														
	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL														
	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
	Prey Fish_Port Phillip Bay Inshore_PFOS														
	General Statistics														
	Total Number of Observations		29			Number of Distinct Observations		22							
	Number of Detects		27			Number of Non-Detects		2							
	Number of Distinct Detects		21			Number of Distinct Non-Detects		1							
	Minimum Detect		0.0012			Minimum Non-Detect		0.005							
	Maximum Detect		0.077			Maximum Non-Detect		0.005							
	Variance Detects		2.5035E-4			Percent Non-Detects		6.897%							
	Mean Detects		0.0129			SD Detects		0.0158							
	Median Detects		0.0085			CV Detects		1.224							
	Skewness Detects		2.995			Kurtosis Detects		10.47							
	Mean of Logged Detects		-4.83			SD of Logged Detects		0.986							
	Normal GOF Test on Detects Only														
	Shapiro Wilk Test Statistic		0.652			**Shapiro Wilk GOF Test**									
	1% Shapiro Wilk Critical Value		0.894			Detected Data Not Normal at 1% Significance Level									
	Lilliefors Test Statistic		0.264			**Lilliefors GOF Test**									
	1% Lilliefors Critical Value		0.194			Detected Data Not Normal at 1% Significance Level									
	Detected Data Not Normal at 1% Significance Level														
	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs														
	KM Mean		0.0123			KM Standard Error of Mean		0.00288							
	90KM SD		0.0152			95% KM (BCA) UCL		0.0176							
	95% KM (t) UCL		0.0171			95% KM (Percentile Bootstrap) UCL		0.0173							
	95% KM (z) UCL		0.017			95% KM Bootstrap t UCL		0.0219							
	90% KM Chebyshev UCL		0.0209			95% KM Chebyshev UCL		0.0248							
	97.5% KM Chebyshev UCL		0.0302			99% KM Chebyshev UCL		0.0409							
	Gamma GOF Tests on Detected Observations Only														
	A-D Test Statistic		0.613			**Anderson-Darling GOF Test**									
	5% A-D Critical Value		0.77			Detected data appear Gamma Distributed at 5% Significance Level									
	K-S Test Statistic		0.149			**Kolmogorov-Smirnov GOF**									
	5% K-S Critical Value		0.172			Detected data appear Gamma Distributed at 5% Significance Level									
	Detected data appear Gamma Distributed at 5% Significance Level														
	Gamma Statistics on Detected Data Only														
	k hat (MLE)		1.177			k star (bias corrected MLE)		1.071							
	Theta hat (MLE)		0.011			Theta star (bias corrected MLE)		0.0121							
	nu hat (MLE)		63.54			nu star (bias corrected)		57.81							
	Mean (detects)		0.0129												
	Gamma ROS Statistics using Imputed Non-Detects														
	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs														
	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)														
	For such situations, GROS method may yield incorrect values of UCLs and BTVs														
	This is especially true when the sample size is small.														
	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates														
	Minimum		0.0012			Mean		0.0127							
	Maximum		0.077			Median		0.0089							
	SD		0.0153			CV		1.199							
	k hat (MLE)		1.25			k star (bias corrected MLE)		1.144							
	Theta hat (MLE)		0.0102			Theta star (bias corrected MLE)		0.0111							
	nu hat (MLE)		72.52			nu star (bias corrected)		66.35							
	Adjusted Level of Significance (β)		0.0407												
	Approximate Chi Square Value (66.35, α)		48.6			Adjusted Chi Square Value (66.35, β)		47.7							
	95% Gamma Approximate UCL		0.0174			95% Gamma Adjusted UCL		0.0177							
	Estimates of Gamma Parameters using KM Estimates														
	Mean (KM)		0.0123			SD (KM)		0.0152							
	Variance (KM)		2.3079E-4			SE of Mean (KM)		0.00288							
	k hat (KM)		0.65			k star (KM)		0.606							
	nu hat (KM)		37.71			nu star (KM)		35.15							
	theta hat (KM)		0.0188			theta star (KM)		0.0202							
	80% gamma percentile (KM)		0.0202			90% gamma percentile (KM)		0.0318							

1673	95% gamma percentile (KM)				0.0439	99% gamma percentile (KM)				0.0732					
1674															
1675	**Gamma Kaplan-Meier (KM) Statistics**														
1676	Approximate Chi Square Value (35.15, α)				22.58	Adjusted Chi Square Value (35.15, β)				21.98					
1677	95% KM Approximate Gamma UCL				0.0191	95% KM Adjusted Gamma UCL				0.0196					
1678															
1679	**Lognormal GOF Test on Detected Observations Only**														
1680	Shapiro Wilk Test Statistic				0.981	**Shapiro Wilk GOF Test**									
1681	10% Shapiro Wilk Critical Value				0.935	Detected Data appear Lognormal at 10% Significance Level									
1682	Lilliefors Test Statistic				0.0934	**Lilliefors GOF Test**									
1683	10% Lilliefors Critical Value				0.153	Detected Data appear Lognormal at 10% Significance Level									
1684	**Detected Data appear Lognormal at 10% Significance Level**														
1685															
1686	**Lognormal ROS Statistics Using Imputed Non-Detects**														
1687	Mean in Original Scale				0.0122	Mean in Log Scale				-4.901					
1688	SD in Original Scale				0.0155	SD in Log Scale				0.989					
1689	95% t UCL (assumes normality of ROS data)				0.0171	95% Percentile Bootstrap UCL				0.0171					
1690	95% BCA Bootstrap UCL				0.0185	95% Bootstrap t UCL				0.0219					
1691	95% H-UCL (Log ROS)				0.0192										
1692															
1693	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**														
1694	KM Mean (logged)				-4.903	KM Geo Mean				0.00743					
1695	KM SD (logged)				0.979	95% Critical H Value (KM-Log)				2.441					
1696	KM Standard Error of Mean (logged)				0.187	95% H-UCL (KM -Log)				0.0188					
1697	KM SD (logged)				0.979	95% Critical H Value (KM-Log)				2.441					
1698	KM Standard Error of Mean (logged)				0.187										
1699															
1700	**DL/2 Statistics**														
1701	**DL/2 Normal**					**DL/2 Log-Transformed**									
1702	Mean in Original Scale				0.0122	Mean in Log Scale				-4.91					
1703	SD in Original Scale				0.0155	SD in Log Scale				0.996					
1704	95% t UCL (Assumes normality)				0.0171	95% H-Stat UCL				0.0192					
1705	**DL/2 is not a recommended method, provided for comparisons and historical reasons**														
1706															
1707	**Nonparametric Distribution Free UCL Statistics**														
1708	**Detected Data appear Gamma Distributed at 5% Significance Level**														
1709															
1710	**Suggested UCL to Use**														
1711	95% KM Adjusted Gamma UCL				0.0196	95% GROS Adjusted Gamma UCL				0.0177					
1712															
1713	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**														
1714	**Please verify the data were collected from random locations.**														
1715	**If the data were collected using judgmental or other non-random methods,**														
1716	**then contact a statistician to correctly calculate UCLs.**														
1717															
1718	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
1719	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
1720	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
1721															
1722	**Prey Fish_Port Phillip Bay Inshore_PFOA**														
1723															
1724	**General Statistics**														
1725	Total Number of Observations				29	Number of Distinct Observations				3					
1726	Number of Detects				1	Number of Non-Detects				28					
1727	Number of Distinct Detects				1	Number of Distinct Non-Detects				2					
1728															
1729	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**														
1730	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**														
1731															
1732	**The data set for variable Prey Fish_Port Phillip Bay Inshore_PFOA was not processed!**														
1733															
1734															
1735															
1736	**Predator Fish (fillet)**_Port Phillip Bay Inshore_PFOS+PFHxS**														
1737															
1738	**General Statistics**														
1739	Total Number of Observations				6	Number of Distinct Observations				6					
1740						Number of Missing Observations				0					
1741	Minimum				0.0207	Mean				0.056					
1742	Maximum				0.13	Median				0.0467					
1743	SD				0.0403	Std. Error of Mean				0.0165					
1744	Coefficient of Variation				0.72	Skewness				1.491					
1745															
1746	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**														
1747	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**														
1748	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**														
1749	**The Chebyshev UCL often results in gross overestimates of the mean.**														
1750	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**														
1751															
1752	**Normal GOF Test**														
1753	Shapiro Wilk Test Statistic				0.857	**Shapiro Wilk GOF Test**									
1754	1% Shapiro Wilk Critical Value				0.713	Data appear Normal at 1% Significance Level									
1755	Lilliefors Test Statistic				0.232	**Lilliefors GOF Test**									
1756	1% Lilliefors Critical Value				0.373	Data appear Normal at 1% Significance Level									
1757	**Data appear Normal at 1% Significance Level**														
1758	**Note GOF tests may be unreliable for small sample sizes**														
1759															
1760	**Assuming Normal Distribution**														

1761	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**								
1762				95% Student's-t UCL		0.0892					95% Adjusted-CLT UCL (Chen-1995)		0.0938		
1763											95% Modified-t UCL (Johnson-1978)		0.0909		
1764															
1765	**Gamma GOF Test**														
1766				A-D Test Statistic		0.26	**Anderson-Darling Gamma GOF Test**								
1767				5% A-D Critical Value		0.702	Detected data appear Gamma Distributed at 5% Significance Level								
1768				K-S Test Statistic		0.174	**Kolmogorov-Smirnov Gamma GOF Test**								
1769				5% K-S Critical Value		0.335	Detected data appear Gamma Distributed at 5% Significance Level								
1770	**Detected data appear Gamma Distributed at 5% Significance Level**														
1771	**Note GOF tests may be unreliable for small sample sizes**														
1772															
1773	**Gamma Statistics**														
1774				k hat (MLE)		2.697					k star (bias corrected MLE)		1.459		
1775				Theta hat (MLE)		0.0208					Theta star (bias corrected MLE)		0.0384		
1776				nu hat (MLE)		32.36					nu star (bias corrected)		17.51		
1777				MLE Mean (bias corrected)		0.056					MLE Sd (bias corrected)		0.0464		
1778											Approximate Chi Square Value (0.05)		9.04		
1779				Adjusted Level of Significance		0.0122					Adjusted Chi Square Value		6.955		
1780															
1781	**Assuming Gamma Distribution**														
1782				95% Approximate Gamma UCL		0.109					95% Adjusted Gamma UCL		0.141		
1783															
1784	**Lognormal GOF Test**														
1785				Shapiro Wilk Test Statistic		0.965	**Shapiro Wilk Lognormal GOF Test**								
1786				10% Shapiro Wilk Critical Value		0.826	Data appear Lognormal at 10% Significance Level								
1787				Lilliefors Test Statistic		0.14	**Lilliefors Lognormal GOF Test**								
1788				10% Lilliefors Critical Value		0.298	Data appear Lognormal at 10% Significance Level								
1789	**Data appear Lognormal at 10% Significance Level**														
1790	**Note GOF tests may be unreliable for small sample sizes**														
1791															
1792	**Lognormal Statistics**														
1793				Minimum of Logged Data		-3.878					Mean of logged Data		-3.079		
1794				Maximum of Logged Data		-2.04					SD of logged Data		0.678		
1795															
1796	**Assuming Lognormal Distribution**														
1797				95% H-UCL		0.148					90% Chebyshev (MVUE) UCL		0.101		
1798				95% Chebyshev (MVUE) UCL		0.122					97.5% Chebyshev (MVUE) UCL		0.151		
1799				99% Chebyshev (MVUE) UCL		0.207									
1800															
1801	**Nonparametric Distribution Free UCL Statistics**														
1802	**Data appear to follow a Discernible Distribution**														
1803															
1804	**Nonparametric Distribution Free UCLs**														
1805				95% CLT UCL		0.0831					95% BCA Bootstrap UCL		0.0901		
1806				95% Standard Bootstrap UCL		0.0806					95% Bootstrap-t UCL		0.115		
1807				95% Hall's Bootstrap UCL		0.197					95% Percentile Bootstrap UCL		0.0829		
1808				90% Chebyshev(Mean, Sd) UCL		0.105					95% Chebyshev(Mean, Sd) UCL		0.128		
1809				97.5% Chebyshev(Mean, Sd) UCL		0.159					99% Chebyshev(Mean, Sd) UCL		0.22		
1810															
1811	**Suggested UCL to Use**														
1812				95% Student's-t UCL		0.0892									
1813															
1814	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
1815	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.														
1816	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.														
1817															
1818															
1819	**Predator Fish (fillet)**_Port Phillip Bay Inshore_PFOS**														
1820															
1821	**General Statistics**														
1822				Total Number of Observations		6					Number of Distinct Observations		6		
1823											Number of Missing Observations		0		
1824				Minimum		0.019					Mean		0.047		
1825				Maximum		0.11					Median		0.036		
1826				SD		0.0342					Std. Error of Mean		0.014		
1827				Coefficient of Variation		0.729					Skewness		1.557		
1828															
1829	**Note: Sample size is small (e.g., <10), If data are collected using incremental sampling methodology (ISM) approach,**														
1830	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**														
1831	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**														
1832	**The Chebyshev UCL often results in gross overestimates of the mean.**														
1833	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**														
1834															
1835	**Normal GOF Test**														
1836				Shapiro Wilk Test Statistic		0.839	**Shapiro Wilk GOF Test**								
1837				1% Shapiro Wilk Critical Value		0.713	Data appear Normal at 1% Significance Level								
1838				Lilliefors Test Statistic		0.213	**Lilliefors GOF Test**								
1839				1% Lilliefors Critical Value		0.373	Data appear Normal at 1% Significance Level								
1840	**Data appear Normal at 1% Significance Level**														
1841	**Note GOF tests may be unreliable for small sample sizes**														
1842															
1843	**Assuming Normal Distribution**														
1844	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**								
1845				95% Student's-t UCL		0.0752					95% Adjusted-CLT UCL (Chen-1995)		0.0795		
1846											95% Modified-t UCL (Johnson-1978)		0.0766		
1847															
1848	**Gamma GOF Test**														

1849	A-D Test Statistic	0.305	**Anderson-Darling Gamma GOF Test**													
1850	5% A-D Critical Value	0.702	Detected data appear Gamma Distributed at 5% Significance Level													
1851	K-S Test Statistic	0.202	**Kolmogorov-Smirnov Gamma GOF Test**													
1852	5% K-S Critical Value	0.335	Detected data appear Gamma Distributed at 5% Significance Level													
1853	**Detected data appear Gamma Distributed at 5% Significance Level**															
1854	**Note GOF tests may be unreliable for small sample sizes**															
1855																
1856	**Gamma Statistics**															
1857	k hat (MLE)	2.744	k star (bias corrected MLE)	1.483												
1858	Theta hat (MLE)	0.0171	Theta star (bias corrected MLE)	0.0317												
1859	nu hat (MLE)	32.93	nu star (bias corrected)	17.8												
1860	MLE Mean (bias corrected)	0.047	MLE Sd (bias corrected)	0.0386												
1861			Approximate Chi Square Value (0.05)	9.244												
1862	Adjusted Level of Significance	0.0122	Adjusted Chi Square Value	7.131												
1863																
1864	**Assuming Gamma Distribution**															
1865	95% Approximate Gamma UCL	0.0905	95% Adjusted Gamma UCL	0.117												
1866																
1867	**Lognormal GOF Test**															
1868	Shapiro Wilk Test Statistic	0.948	**Shapiro Wilk Lognormal GOF Test**													
1869	10% Shapiro Wilk Critical Value	0.826	Data appear Lognormal at 10% Significance Level													
1870	Lilliefors Test Statistic	0.169	**Lilliefors Lognormal GOF Test**													
1871	10% Lilliefors Critical Value	0.298	Data appear Lognormal at 10% Significance Level													
1872	**Data appear Lognormal at 10% Significance Level**															
1873	**Note GOF tests may be unreliable for small sample sizes**															
1874																
1875	**Lognormal Statistics**															
1876	Minimum of Logged Data	-3.963	Mean of logged Data	-3.251												
1877	Maximum of Logged Data	-2.207	SD of logged Data	0.662												
1878																
1879	**Assuming Lognormal Distribution**															
1880	95% H-UCL	0.119	90% Chebyshev (MVUE) UCL	0.0836												
1881	95% Chebyshev (MVUE) UCL	0.101	97.5% Chebyshev (MVUE) UCL	0.124												
1882	99% Chebyshev (MVUE) UCL	0.17														
1883																
1884	**Nonparametric Distribution Free UCL Statistics**															
1885	**Data appear to follow a Discernible Distribution**															
1886																
1887	**Nonparametric Distribution Free UCLs**															
1888	95% CLT UCL	0.07	95% BCA Bootstrap UCL	0.0768												
1889	95% Standard Bootstrap UCL	0.0678	95% Bootstrap-t UCL	0.105												
1890	95% Hall's Bootstrap UCL	0.175	95% Percentile Bootstrap UCL	0.0698												
1891	90% Chebyshev(Mean, Sd) UCL	0.0889	95% Chebyshev(Mean, Sd) UCL	0.108												
1892	97.5% Chebyshev(Mean, Sd) UCL	0.134	99% Chebyshev(Mean, Sd) UCL	0.186												
1893																
1894	**Suggested UCL to Use**															
1895	95% Student's-t UCL	0.0752														
1896																
1897	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.															
1898	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.															
1899	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.															
1900																
1901	**Predator Fish (fillet)**_Port Phillip Bay Inshore_PFOA**															
1902																
1903	**General Statistics**															
1904	Total Number of Observations	6	Number of Distinct Observations	2												
1905	Number of Detects	3	Number of Non-Detects	3												
1906	Number of Distinct Detects	2	Number of Distinct Non-Detects	1												
1907	Minimum Detect	3.0000E-4	Minimum Non-Detect	3.0000E-4												
1908	Maximum Detect	7.0000E-4	Maximum Non-Detect	3.0000E-4												
1909	Variance Detects	5.3333E-8	Percent Non-Detects	50%												
1910	Mean Detects	4.3333E-4	SD Detects	2.3094E-4												
1911	Median Detects	3.0000E-4	CV Detects	0.533												
1912	Skewness Detects	1.732	Kurtosis Detects	N/A												
1913	Mean of Logged Detects	-7.829	SD of Logged Detects	0.489												
1914																
1915	**Warning: Data set has only 3 Detected Values.**															
1916	**This is not enough to compute meaningful or reliable statistics and estimates.**															
1917																
1918																
1919	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**															
1920	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**															
1921	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**															
1922	**The Chebyshev UCL often results in gross overestimates of the mean.**															
1923	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**															
1924																
1925	**Normal GOF Test on Detects Only**															
1926	Shapiro Wilk Test Statistic	0.75	**Shapiro Wilk GOF Test**													
1927	1% Shapiro Wilk Critical Value	0.753	Detected Data Not Normal at 1% Significance Level													
1928	Lilliefors Test Statistic	0.385	**Lilliefors GOF Test**													
1929	1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level													
1930	**Detected Data appear Approximate Normal at 1% Significance Level**															
1931	**Note GOF tests may be unreliable for small sample sizes**															
1932																
1933	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**															
1934	KM Mean	3.6667E-4	KM Standard Error of Mean	7.4536E-5												
1935	90KM SD	1.4907E-4	95% KM (BCA) UCL	N/A												
1936	95% KM (t) UCL	5.1686E-4	95% KM (Percentile Bootstrap) UCL	N/A												

1937					95% KM (z) UCL	4.8927E-4				95% KM Bootstrap t UCL		N/A				
1938					90% KM Chebyshev UCL	5.9027E-4				95% KM Chebyshev UCL		6.9156E-4				
1939					97.5% KM Chebyshev UCL	8.3214E-4				99% KM Chebyshev UCL		0.00111				
1940																
1941					**Gamma GOF Tests on Detected Observations Only**											
1942					A-D Test Statistic	0.62			**Anderson-Darling GOF Test**							
1943					5% A-D Critical Value	0.637			Detected data appear Gamma Distributed at 5% Significance Level							
1944					K-S Test Statistic	0.428			**Kolmogorov-Smirnov GOF**							
1945					5% K-S Critical Value	0.433			Detected data appear Gamma Distributed at 5% Significance Level							
1946					**Detected Data Not Gamma Distributed at 5% Significance Level**											
1947																
1948					**Gamma Statistics on Detected Data Only**											
1949					k hat (MLE)	6.024				k star (bias corrected MLE)		N/A				
1950					Theta hat (MLE)	7.1935E-5				Theta star (bias corrected MLE)		N/A				
1951					nu hat (MLE)	36.14				nu star (bias corrected)		N/A				
1952					Mean (detects)	4.3333E-4										
1953																
1954					**Gamma ROS Statistics using Imputed Non-Detects**											
1955					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1956					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1957					For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1958					This is especially true when the sample size is small.											
1959					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1960					Minimum	3.0000E-4				Mean		0.00522				
1961					Maximum	0.01				Median		0.00535				
1962					SD	0.00524				CV		1.005				
1963					k hat (MLE)	0.637				k star (bias corrected MLE)		0.43				
1964					Theta hat (MLE)	0.00819				Theta star (bias corrected MLE)		0.0121				
1965					nu hat (MLE)	7.645				nu star (bias corrected)		5.156				
1966					Adjusted Level of Significance (β)	0.0122										
1967					Approximate Chi Square Value (5.16, α)	1.225				Adjusted Chi Square Value (5.16, β)		0.667				
1968					95% Gamma Approximate UCL	0.022				95% Gamma Adjusted UCL		N/A				
1969																
1970					**Estimates of Gamma Parameters using KM Estimates**											
1971					Mean (KM)	3.6667E-4				SD (KM)		1.4907E-4				
1972					Variance (KM)	2.2222E-8				SE of Mean (KM)		7.4536E-5				
1973					k hat (KM)	6.05				k star (KM)		3.136				
1974					nu hat (KM)	72.6				nu star (KM)		37.63				
1975					theta hat (KM)	6.0606E-5				theta star (KM)		1.1692E-4				
1976					80% gamma percentile (KM)	5.2023E-4				90% gamma percentile (KM)		6.4430E-4				
1977					95% gamma percentile (KM)	7.5981E-4				99% gamma percentile (KM)		0.00101				
1978																
1979					**Gamma Kaplan-Meier (KM) Statistics**											
1980					Approximate Chi Square Value (37.63, α)	24.59				Adjusted Chi Square Value (37.63, β)		20.86				
1981					95% KM Approximate Gamma UCL	5.6123E-4				95% KM Adjusted Gamma UCL		6.6143E-4				
1982																
1983					**Lognormal GOF Test on Detected Observations Only**											
1984					Shapiro Wilk Test Statistic	0.75			**Shapiro Wilk GOF Test**							
1985					10% Shapiro Wilk Critical Value	0.789			Detected Data Not Lognormal at 10% Significance Level							
1986					Lilliefors Test Statistic	0.385			**Lilliefors GOF Test**							
1987					10% Lilliefors Critical Value	0.389			Detected Data appear Lognormal at 10% Significance Level							
1988					**Detected Data appear Approximate Lognormal at 10% Significance Level**											
1989					**Note GOF tests may be unreliable for small sample sizes**											
1990																
1991					**Lognormal ROS Statistics Using Imputed Non-Detects**											
1992					Mean in Original Scale	2.6323E-4				Mean in Log Scale		-8.587				
1993					SD in Original Scale	2.3805E-4				SD in Log Scale		0.929				
1994					95% t UCL (assumes normality of ROS data)	4.5905E-4				95% Percentile Bootstrap UCL		4.2438E-4				
1995					95% BCA Bootstrap UCL	4.6520E-4				95% Bootstrap t UCL		6.1886E-4				
1996					95% H-UCL (Log ROS)	0.00143										
1997																
1998					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1999					KM Mean (logged)	-7.971				KM Geo Mean		3.4550E-4				
2000					KM SD (logged)	0.316				95% Critical H Value (KM-Log)		2.254				
2001					KM Standard Error of Mean (logged)	0.158				95% H-UCL (KM -Log)		4.9925E-4				
2002					KM SD (logged)	0.316				95% Critical H Value (KM-Log)		2.254				
2003					KM Standard Error of Mean (logged)	0.158										
2004																
2005					**DL/2 Statistics**											
2006					**DL/2 Normal**					**DL/2 Log-Transformed**						
2007					Mean in Original Scale	2.9167E-4				Mean in Log Scale		-8.317				
2008					SD in Original Scale	2.1311E-4				SD in Log Scale		0.617				
2009					95% t UCL (Assumes normality)	4.6698E-4				95% H-Stat UCL		6.6554E-4				
2010					**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2011																
2012					**Nonparametric Distribution Free UCL Statistics**											
2013					**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
2014																
2015					**Suggested UCL to Use**											
2016					95% KM (t) UCL	5.1686E-4										
2017																
2018					When a data set follows an approximate distribution passing only one of the GOF tests,											
2019					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2020																
2021					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2022					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2023					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2024																

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 24/11/2025 1:17:58 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

PPB_Foreshore_PFOS+PFHxS

General Statistics

Total Number of Observations	22	Number of Distinct Observations	15
Number of Detects	20	Number of Non-Detects	2
Number of Distinct Detects	14	Number of Distinct Non-Detects	1
Minimum Detect	2.0000E-4	Minimum Non-Detect	1.0000E-4
Maximum Detect	0.133	Maximum Non-Detect	1.0000E-4
Variance Detects	8.7475E-4	Percent Non-Detects	9.091%
Mean Detects	0.00847	SD Detects	0.0296
Median Detects	7.0000E-4	CV Detects	3.492
Skewness Detects	4.349	Kurtosis Detects	19.17
Mean of Logged Detects	-6.94	SD of Logged Detects	1.663

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.303	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.868	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.456	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.223	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.00771	KM Standard Error of Mean	0.00604
90KM SD	0.0276	95% KM (BCA) UCL	0.0195
95% KM (t) UCL	0.0181	95% KM (Percentile Bootstrap) UCL	0.019
95% KM (z) UCL	0.0176	95% KM Bootstrap t UCL	0.183
90% KM Chebyshev UCL	0.0258	95% KM Chebyshev UCL	0.034
97.5% KM Chebyshev UCL	0.0454	99% KM Chebyshev UCL	0.0678

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.19	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.841	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.309	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.21	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.315	k star (bias corrected MLE)	0.301
Theta hat (MLE)	0.0269	Theta star (bias corrected MLE)	0.0281
nu hat (MLE)	12.62	nu star (bias corrected)	12.06
Mean (detects)	0.00847		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58						Minimum	2.0000E-4				Mean	0.00861
59						Maximum	0.133				Median	8.0000E-4
60						SD	0.0281				CV	3.268
61						k hat (MLE)	0.342				k star (bias corrected MLE)	0.326
62						Theta hat (MLE)	0.0252				Theta star (bias corrected MLE)	0.0264
63						nu hat (MLE)	15.05				nu star (bias corrected)	14.33
64						Adjusted Level of Significance (β)	0.0386					
65						Approximate Chi Square Value (14.33, α)	6.801				Adjusted Chi Square Value (14.33, β)	6.416
66						95% Gamma Approximate UCL	0.0181				95% Gamma Adjusted UCL	0.0192
67												
68	**Estimates of Gamma Parameters using KM Estimates**											
69						Mean (KM)	0.00771				SD (KM)	0.0276
70						Variance (KM)	7.6126E-4				SE of Mean (KM)	0.00604
71						k hat (KM)	0.0781				k star (KM)	0.0977
72						nu hat (KM)	3.435				nu star (KM)	4.3
73						theta hat (KM)	0.0987				theta star (KM)	0.0789
74						80% gamma percentile (KM)	0.00517				90% gamma percentile (KM)	0.0203
75						95% gamma percentile (KM)	0.0448				99% gamma percentile (KM)	0.124
76												
77	**Gamma Kaplan-Meier (KM) Statistics**											
78						Approximate Chi Square Value (4.30, α)	0.844				Adjusted Chi Square Value (4.30, β)	0.739
79						95% KM Approximate Gamma UCL	0.0393				95% KM Adjusted Gamma UCL	0.0449
80	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
81												
82	**Lognormal GOF Test on Detected Observations Only**											
83						Shapiro Wilk Test Statistic	0.839				**Shapiro Wilk GOF Test**	
84						10% Shapiro Wilk Critical Value	0.92				Detected Data Not Lognormal at 10% Significance Level	
85						Lilliefors Test Statistic	0.192				**Lilliefors GOF Test**	
86						10% Lilliefors Critical Value	0.176				Detected Data Not Lognormal at 10% Significance Level	
87	**Detected Data Not Lognormal at 10% Significance Level**											
88												
89	**Lognormal ROS Statistics Using Imputed Non-Detects**											
90						Mean in Original Scale	0.0077				Mean in Log Scale	-7.279
91						SD in Original Scale	0.0282				SD in Log Scale	1.927
92						95% t UCL (assumes normality of ROS data)	0.0181				95% Percentile Bootstrap UCL	0.019
93						95% BCA Bootstrap UCL	0.0262				95% Bootstrap t UCL	0.193
94						95% H-UCL (Log ROS)	0.0244					
95												
96	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
97						KM Mean (logged)	-7.146				KM Geo Mean	7.8784E-4
98						KM SD (logged)	1.678				95% Critical H Value (KM-Log)	3.635
99						KM Standard Error of Mean (logged)	0.367				95% H-UCL (KM -Log)	0.0122
100						KM SD (logged)	1.678				95% Critical H Value (KM-Log)	3.635
101						KM Standard Error of Mean (logged)	0.367					
102												
103	**DL/2 Statistics**											
104	**DL/2 Normal**										**DL/2 Log-Transformed**	
105						Mean in Original Scale	0.0077				Mean in Log Scale	-7.209
106						SD in Original Scale	0.0282				SD in Log Scale	1.806
107						95% t UCL (Assumes normality)	0.0181				95% H-Stat UCL	0.0173
108	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

109												
110	**Nonparametric Distribution Free UCL Statistics**											
111	**Data do not follow a Discernible Distribution**											
112												
113	**Suggested UCL to Use**											
114	95% KM (t) UCL				0.0181							
115												
116	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
117	**Please verify the data were collected from random locations.**											
118	**If the data were collected using judgmental or other non-random methods,**											
119	**then contact a statistician to correctly calculate UCLs.**											
120												
121	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
122	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
123	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
124												
125	**PPB_Foreshore_PFOS**											
126												
127	**General Statistics**											
128	Total Number of Observations				22			Number of Distinct Observations				16
129	Number of Detects				20			Number of Non-Detects				2
130	Number of Distinct Detects				15			Number of Distinct Non-Detects				1
131	Minimum Detect				2.0000E-4			Minimum Non-Detect				1.0000E-4
132	Maximum Detect				0.057			Maximum Non-Detect				1.0000E-4
133	Variance Detects				1.6738E-4			Percent Non-Detects				9.091%
134	Mean Detects				0.00466			SD Detects				0.0129
135	Median Detects				6.5000E-4			CV Detects				2.779
136	Skewness Detects				3.908			Kurtosis Detects				15.91
137	Mean of Logged Detects				-6.992			SD of Logged Detects				1.536
138												
139	**Normal GOF Test on Detects Only**											
140	Shapiro Wilk Test Statistic				0.383			**Shapiro Wilk GOF Test**				
141	1% Shapiro Wilk Critical Value				0.868			Detected Data Not Normal at 1% Significance Level				
142	Lilliefors Test Statistic				0.411			**Lilliefors GOF Test**				
143	1% Lilliefors Critical Value				0.223			Detected Data Not Normal at 1% Significance Level				
144	**Detected Data Not Normal at 1% Significance Level**											
145												
146	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
147	KM Mean				0.00424			KM Standard Error of Mean				0.00265
148	90KM SD				0.0121			95% KM (BCA) UCL				0.00878
149	95% KM (t) UCL				0.00879			95% KM (Percentile Bootstrap) UCL				0.00871
150	95% KM (z) UCL				0.00859			95% KM Bootstrap t UCL				0.0433
151	90% KM Chebyshev UCL				0.0122			95% KM Chebyshev UCL				0.0158
152	97.5% KM Chebyshev UCL				0.0208			99% KM Chebyshev UCL				0.0306
153												
154	**Gamma GOF Tests on Detected Observations Only**											
155	A-D Test Statistic				2.502			**Anderson-Darling GOF Test**				
156	5% A-D Critical Value				0.823			Detected Data Not Gamma Distributed at 5% Significance Level				
157	K-S Test Statistic				0.291			**Kolmogorov-Smirnov GOF**				
158	5% K-S Critical Value				0.207			Detected Data Not Gamma Distributed at 5% Significance Level				
159	**Detected Data Not Gamma Distributed at 5% Significance Level**											
160												
161	**Gamma Statistics on Detected Data Only**											
162	k hat (MLE)				0.405			k star (bias corrected MLE)				0.377

163					Theta hat (MLE)	0.0115					Theta star (bias corrected MLE)	0.0123
164					nu hat (MLE)	16.2					nu star (bias corrected)	15.1
165					Mean (detects)	0.00466						
166												
167					**Gamma ROS Statistics using Imputed Non-Detects**							
168					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
169					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
170					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
171					This is especially true when the sample size is small.							
172					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
173					Minimum	2.0000E-4					Mean	0.00514
174					Maximum	0.057					Median	7.5000E-4
175					SD	0.0124					CV	2.413
176					k hat (MLE)	0.432					k star (bias corrected MLE)	0.403
177					Theta hat (MLE)	0.0119					Theta star (bias corrected MLE)	0.0127
178					nu hat (MLE)	19.01					nu star (bias corrected)	17.75
179					Adjusted Level of Significance (β)	0.0386						
180					Approximate Chi Square Value (17.75, α)	9.211					Adjusted Chi Square Value (17.75, β)	8.753
181					95% Gamma Approximate UCL	0.00991					95% Gamma Adjusted UCL	0.0104
182												
183					**Estimates of Gamma Parameters using KM Estimates**							
184					Mean (KM)	0.00424					SD (KM)	0.0121
185					Variance (KM)	1.4627E-4					SE of Mean (KM)	0.00265
186					k hat (KM)	0.123					k star (KM)	0.136
187					nu hat (KM)	5.41					nu star (KM)	6.006
188					theta hat (KM)	0.0345					theta star (KM)	0.0311
189					80% gamma percentile (KM)	0.00425					90% gamma percentile (KM)	0.0124
190					95% gamma percentile (KM)	0.0237					99% gamma percentile (KM)	0.0574
191												
192					**Gamma Kaplan-Meier (KM) Statistics**							
193					Approximate Chi Square Value (6.01, α)	1.643					Adjusted Chi Square Value (6.01, β)	1.479
194					95% KM Approximate Gamma UCL	0.0155					95% KM Adjusted Gamma UCL	0.0172
195												
196					**Lognormal GOF Test on Detected Observations Only**							
197					Shapiro Wilk Test Statistic	0.865					**Shapiro Wilk GOF Test**	
198					10% Shapiro Wilk Critical Value	0.92					Detected Data Not Lognormal at 10% Significance Level	
199					Lilliefors Test Statistic	0.178					**Lilliefors GOF Test**	
200					10% Lilliefors Critical Value	0.176					Detected Data Not Lognormal at 10% Significance Level	
201					**Detected Data Not Lognormal at 10% Significance Level**							
202												
203					**Lognormal ROS Statistics Using Imputed Non-Detects**							
204					Mean in Original Scale	0.00423					Mean in Log Scale	-7.311
205					SD in Original Scale	0.0124					SD in Log Scale	1.791
206					95% t UCL (assumes normality of ROS data)	0.00878					95% Percentile Bootstrap UCL	0.00873
207					95% BCA Bootstrap UCL	0.0122					95% Bootstrap t UCL	0.0447
208					95% H-UCL (Log ROS)	0.0148						
209												
210					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
211					KM Mean (logged)	-7.194					KM Geo Mean	7.5141E-4
212					KM SD (logged)	1.563					95% Critical H Value (KM-Log)	3.445
213					KM Standard Error of Mean (logged)	0.342					95% H-UCL (KM -Log)	0.00826
214					KM SD (logged)	1.563					95% Critical H Value (KM-Log)	3.445
215					KM Standard Error of Mean (logged)	0.342						
216												

	A	B	C	D	E	F	G	H	I	J	K	L
217	**DL/2 Statistics**											
218	**DL/2 Normal**						**DL/2 Log-Transformed**					
219	Mean in Original Scale					0.00424	Mean in Log Scale					-7.257
220	SD in Original Scale					0.0124	SD in Log Scale					1.693
221	95% t UCL (Assumes normality)					0.00878	95% H-Stat UCL					0.0114
222	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
223												
224	**Nonparametric Distribution Free UCL Statistics**											
225	**Data do not follow a Discernible Distribution**											
226												
227	**Suggested UCL to Use**											
228	95% KM (t) UCL					0.00879						
229												
230	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
231	**Please verify the data were collected from random locations.**											
232	**If the data were collected using judgmental or other non-random methods,**											
233	**then contact a statistician to correctly calculate UCLs.**											
234												
235	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
236	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
237	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
238												
239	**PPB_Foreshore_PFOA**											
240												
241	**General Statistics**											
242	Total Number of Observations					22	Number of Distinct Observations					2
243	Number of Detects					0	Number of Non-Detects					22
244	Number of Distinct Detects					0	Number of Distinct Non-Detects					2
245												
246	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
247	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
248	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
249												
250	**The data set for variable PPB_Foreshore_PFOA was not processed!**											
251												
252												
253	**PPB_Inshore_PFOS+PFHxS**											
254												
255	**General Statistics**											
256	Total Number of Observations					26	Number of Distinct Observations					20
257	Number of Detects					23	Number of Non-Detects					3
258	Number of Distinct Detects					19	Number of Distinct Non-Detects					1
259	Minimum Detect					2.0000E-4	Minimum Non-Detect					1.0000E-4
260	Maximum Detect					0.125	Maximum Non-Detect					1.0000E-4
261	Variance Detects					6.6477E-4	Percent Non-Detects					11.54%
262	Mean Detects					0.00877	SD Detects					0.0258
263	Median Detects					0.0021	CV Detects					2.942
264	Skewness Detects					4.533	Kurtosis Detects					21.14
265	Mean of Logged Detects					-6.291	SD of Logged Detects					1.62
266												
267	**Normal GOF Test on Detects Only**											
268	Shapiro Wilk Test Statistic					0.34	**Shapiro Wilk GOF Test**					
269	1% Shapiro Wilk Critical Value					0.881	Detected Data Not Normal at 1% Significance Level					
270	Lilliefors Test Statistic					0.375	**Lilliefors GOF Test**					

271	1% Lilliefors Critical Value					0.209	Detected Data Not Normal at 1% Significance Level					
272	**Detected Data Not Normal at 1% Significance Level**											
273												
274	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
275	KM Mean					0.00777	KM Standard Error of Mean					0.00479
276	90KM SD					0.0239	95% KM (BCA) UCL					0.0168
277	95% KM (t) UCL					0.0159	95% KM (Percentile Bootstrap) UCL					0.0169
278	95% KM (z) UCL					0.0156	95% KM Bootstrap t UCL					0.0567
279	90% KM Chebyshev UCL					0.0221	95% KM Chebyshev UCL					0.0286
280	97.5% KM Chebyshev UCL					0.0377	99% KM Chebyshev UCL					0.0554
281												
282	**Gamma GOF Tests on Detected Observations Only**											
283	A-D Test Statistic					1.803	**Anderson-Darling GOF Test**					
284	5% A-D Critical Value					0.823	Detected Data Not Gamma Distributed at 5% Significance Level					
285	K-S Test Statistic					0.242	**Kolmogorov-Smirnov GOF**					
286	5% K-S Critical Value					0.194	Detected Data Not Gamma Distributed at 5% Significance Level					
287	**Detected Data Not Gamma Distributed at 5% Significance Level**											
288												
289	**Gamma Statistics on Detected Data Only**											
290	k hat (MLE)					0.42	k star (bias corrected MLE)					0.394
291	Theta hat (MLE)					0.0209	Theta star (bias corrected MLE)					0.0222
292	nu hat (MLE)					19.33	nu star (bias corrected)					18.14
293	Mean (detects)					0.00877						
294												
295	**Gamma ROS Statistics using Imputed Non-Detects**											
296	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
297	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
298	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
299	This is especially true when the sample size is small.											
300	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
301	Minimum					2.0000E-4	Mean					0.00891
302	Maximum					0.125	Median					0.00215
303	SD					0.0242	CV					2.716
304	k hat (MLE)					0.467	k star (bias corrected MLE)					0.439
305	Theta hat (MLE)					0.0191	Theta star (bias corrected MLE)					0.0203
306	nu hat (MLE)					24.27	nu star (bias corrected)					22.8
307	Adjusted Level of Significance (β)					0.0398						
308	Approximate Chi Square Value (22.80, α)					12.94	Adjusted Chi Square Value (22.80, β)					12.45
309	95% Gamma Approximate UCL					0.0157	95% Gamma Adjusted UCL					0.0163
310												
311	**Estimates of Gamma Parameters using KM Estimates**											
312	Mean (KM)					0.00777	SD (KM)					0.0239
313	Variance (KM)					5.7016E-4	SE of Mean (KM)					0.00479
314	k hat (KM)					0.106	k star (KM)					0.119
315	nu hat (KM)					5.5	nu star (KM)					6.198
316	theta hat (KM)					0.0734	theta star (KM)					0.0651
317	80% gamma percentile (KM)					0.00676	90% gamma percentile (KM)					0.022
318	95% gamma percentile (KM)					0.0443	99% gamma percentile (KM)					0.113
319												
320	**Gamma Kaplan-Meier (KM) Statistics**											
321	Approximate Chi Square Value (6.20, α)					1.742	Adjusted Chi Square Value (6.20, β)					1.591
322	95% KM Approximate Gamma UCL					0.0276	95% KM Adjusted Gamma UCL					0.0302
323												
324	**Lognormal GOF Test on Detected Observations Only**											

325	Shapiro Wilk Test Statistic					0.951	**Shapiro Wilk GOF Test**					
326	10% Shapiro Wilk Critical Value					0.928	Detected Data appear Lognormal at 10% Significance Level					
327	Lilliefors Test Statistic					0.1	**Lilliefors GOF Test**					
328	10% Lilliefors Critical Value					0.165	Detected Data appear Lognormal at 10% Significance Level					
329	**Detected Data appear Lognormal at 10% Significance Level**											
330												
331	**Lognormal ROS Statistics Using Imputed Non-Detects**											
332	Mean in Original Scale					0.00776	Mean in Log Scale					-6.726
333	SD in Original Scale					0.0244	SD in Log Scale					1.961
334	95% t UCL (assumes normality of ROS data)					0.0159	95% Percentile Bootstrap UCL					0.017
335	95% BCA Bootstrap UCL					0.0224	95% Bootstrap t UCL					0.0565
336	95% H-UCL (Log ROS)					0.0385						
337												
338	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
339	KM Mean (logged)					-6.628	KM Geo Mean					0.00132
340	KM SD (logged)					1.758	95% Critical H Value (KM-Log)					3.618
341	KM Standard Error of Mean (logged)					0.353	95% H-UCL (KM -Log)					0.0221
342	KM SD (logged)					1.758	95% Critical H Value (KM-Log)					3.618
343	KM Standard Error of Mean (logged)					0.353						
344												
345	**DL/2 Statistics**											
346	**DL/2 Normal**						**DL/2 Log-Transformed**					
347	Mean in Original Scale					0.00776	Mean in Log Scale					-6.708
348	SD in Original Scale					0.0244	SD in Log Scale					1.922
349	95% t UCL (Assumes normality)					0.0159	95% H-Stat UCL					0.0345
350	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
351												
352	**Nonparametric Distribution Free UCL Statistics**											
353	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
354												
355	**Suggested UCL to Use**											
356	KM (t) UCL					0.0159						
357												
358	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
359	**Please verify the data were collected from random locations.**											
360	**If the data were collected using judgmental or other non-random methods,**											
361	**then contact a statistician to correctly calculate UCLs.**											
362												
363	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
364	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
365	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
366												
367	**PPB_Inshore_PFOS**											
368												
369	**General Statistics**											
370	Total Number of Observations					26	Number of Distinct Observations					20
371	Number of Detects					23	Number of Non-Detects					3
372	Number of Distinct Detects					19	Number of Distinct Non-Detects					1
373	Minimum Detect					2.0000E-4	Minimum Non-Detect					1.0000E-4
374	Maximum Detect					0.12	Maximum Non-Detect					1.0000E-4
375	Variance Detects					6.1567E-4	Percent Non-Detects					11.54%
376	Mean Detects					0.00827	SD Detects					0.0248
377	Median Detects					0.0018	CV Detects					2.999
378	Skewness Detects					4.531	Kurtosis Detects					21.11

379	Mean of Logged Detects					-6.361	SD of Logged Detects					1.587
380												
381	**Normal GOF Test on Detects Only**											
382	Shapiro Wilk Test Statistic					0.335	**Shapiro Wilk GOF Test**					
383	1% Shapiro Wilk Critical Value					0.881	Detected Data Not Normal at 1% Significance Level					
384	Lilliefors Test Statistic					0.387	**Lilliefors GOF Test**					
385	1% Lilliefors Critical Value					0.209	Detected Data Not Normal at 1% Significance Level					
386	**Detected Data Not Normal at 1% Significance Level**											
387												
388	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
389	KM Mean					0.00733	KM Standard Error of Mean					0.00461
390	90KM SD					0.023	95% KM (BCA) UCL					0.016
391	95% KM (t) UCL					0.0152	95% KM (Percentile Bootstrap) UCL					0.0161
392	95% KM (z) UCL					0.0149	95% KM Bootstrap t UCL					0.0596
393	90% KM Chebyshev UCL					0.0212	95% KM Chebyshev UCL					0.0274
394	97.5% KM Chebyshev UCL					0.0361	99% KM Chebyshev UCL					0.0532
395												
396	**Gamma GOF Tests on Detected Observations Only**											
397	A-D Test Statistic					2.04	**Anderson-Darling GOF Test**					
398	5% A-D Critical Value					0.823	Detected Data Not Gamma Distributed at 5% Significance Level					
399	K-S Test Statistic					0.28	**Kolmogorov-Smirnov GOF**					
400	5% K-S Critical Value					0.194	Detected Data Not Gamma Distributed at 5% Significance Level					
401	**Detected Data Not Gamma Distributed at 5% Significance Level**											
402												
403	**Gamma Statistics on Detected Data Only**											
404	k hat (MLE)					0.417	k star (bias corrected MLE)					0.392
405	Theta hat (MLE)					0.0198	Theta star (bias corrected MLE)					0.0211
406	nu hat (MLE)					19.2	nu star (bias corrected)					18.02
407	Mean (detects)					0.00827						
408												
409	**Gamma ROS Statistics using Imputed Non-Detects**											
410	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
411	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
412	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
413	This is especially true when the sample size is small.											
414	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
415	Minimum					2.0000E-4	Mean					0.00847
416	Maximum					0.12	Median					0.00195
417	SD					0.0233	CV					2.748
418	k hat (MLE)					0.463	k star (bias corrected MLE)					0.435
419	Theta hat (MLE)					0.0183	Theta star (bias corrected MLE)					0.0195
420	nu hat (MLE)					24.09	nu star (bias corrected)					22.64
421	Adjusted Level of Significance (β)					0.0398						
422	Approximate Chi Square Value (22.64, α)					12.82	Adjusted Chi Square Value (22.64, β)					12.33
423	95% Gamma Approximate UCL					0.015	95% Gamma Adjusted UCL					0.0156
424												
425	**Estimates of Gamma Parameters using KM Estimates**											
426	Mean (KM)					0.00733	SD (KM)					0.023
427	Variance (KM)					5.2777E-4	SE of Mean (KM)					0.00461
428	k hat (KM)					0.102	k star (KM)					0.116
429	nu hat (KM)					5.295	nu star (KM)					6.017
430	theta hat (KM)					0.072	theta star (KM)					0.0634
431	80% gamma percentile (KM)					0.00616	90% gamma percentile (KM)					0.0206
432	95% gamma percentile (KM)					0.042	99% gamma percentile (KM)					0.108

433												
434	**Gamma Kaplan-Meier (KM) Statistics**											
435					Approximate Chi Square Value (6.02, α)	1.649			Adjusted Chi Square Value (6.02, β)			1.503
436					95% KM Approximate Gamma UCL	0.0268			95% KM Adjusted Gamma UCL			0.0293
437												
438	**Lognormal GOF Test on Detected Observations Only**											
439					Shapiro Wilk Test Statistic	0.943	**Shapiro Wilk GOF Test**					
440					10% Shapiro Wilk Critical Value	0.928	Detected Data appear Lognormal at 10% Significance Level					
441					Lilliefors Test Statistic	0.131	**Lilliefors GOF Test**					
442					10% Lilliefors Critical Value	0.165	Detected Data appear Lognormal at 10% Significance Level					
443	**Detected Data appear Lognormal at 10% Significance Level**											
444												
445	**Lognormal ROS Statistics Using Imputed Non-Detects**											
446					Mean in Original Scale	0.00732			Mean in Log Scale			-6.785
447					SD in Original Scale	0.0234			SD in Log Scale			1.917
448					95% t UCL (assumes normality of ROS data)	0.0152			95% Percentile Bootstrap UCL			0.0161
449					95% BCA Bootstrap UCL	0.0214			95% Bootstrap t UCL			0.0577
450					95% H-UCL (Log ROS)	0.0314						
451												
452	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
453					KM Mean (logged)	-6.69			KM Geo Mean			0.00124
454					KM SD (logged)	1.72			95% Critical H Value (KM-Log)			3.558
455					KM Standard Error of Mean (logged)	0.345			95% H-UCL (KM -Log)			0.0186
456					KM SD (logged)	1.72			95% Critical H Value (KM-Log)			3.558
457					KM Standard Error of Mean (logged)	0.345						
458												
459	**DL/2 Statistics**											
460	**DL/2 Normal**						**DL/2 Log-Transformed**					
461					Mean in Original Scale	0.00733			Mean in Log Scale			-6.77
462					SD in Original Scale	0.0234			SD in Log Scale			1.884
463					95% t UCL (Assumes normality)	0.0152			95% H-Stat UCL			0.0285
464	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
465												
466	**Nonparametric Distribution Free UCL Statistics**											
467	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
468												
469	**Suggested UCL to Use**											
470					KM (t) UCL	0.0152						
471												
472	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
473	**Please verify the data were collected from random locations.**											
474	**If the data were collected using judgmental or other non-random methods,**											
475	**then contact a statistician to correctly calculate UCLs.**											
476												
477	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
478	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
479	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
480												
481	**PPB_Inshore_PFOA**											
482												
483	**General Statistics**											
484					Total Number of Observations	26			Number of Distinct Observations			4
485					Number of Detects	7			Number of Non-Detects			19
486					Number of Distinct Detects	4			Number of Distinct Non-Detects			2

487					Minimum Detect	1.0000E-4					Minimum Non-Detect	1.0000E-4
488					Maximum Detect	6.0000E-4					Maximum Non-Detect	2.0000E-4
489					Variance Detects	3.9048E-8					Percent Non-Detects	73.08%
490					Mean Detects	2.7143E-4					SD Detects	1.9760E-4
491					Median Detects	2.0000E-4					CV Detects	0.728
492					Skewness Detects	1.096					Kurtosis Detects	-0.445
493					Mean of Logged Detects	-8.427					SD of Logged Detects	0.701
494												
495	**Normal GOF Test on Detects Only**											
496					Shapiro Wilk Test Statistic	0.8	**Shapiro Wilk GOF Test**					
497					1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level					
498					Lilliefors Test Statistic	0.355	**Lilliefors GOF Test**					
499					1% Lilliefors Critical Value	0.35	Detected Data Not Normal at 1% Significance Level					
500	**Detected Data appear Approximate Normal at 1% Significance Level**											
501	**Note GOF tests may be unreliable for small sample sizes**											
502												
503	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
504					KM Mean	1.4615E-4					KM Standard Error of Mean	2.5764E-5
505					90KM SD	1.2163E-4					95% KM (BCA) UCL	N/A
506					95% KM (t) UCL	1.9016E-4					95% KM (Percentile Bootstrap) UCL	N/A
507					95% KM (z) UCL	1.8853E-4					95% KM Bootstrap t UCL	N/A
508					90% KM Chebyshev UCL	2.2345E-4					95% KM Chebyshev UCL	2.5846E-4
509					97.5% KM Chebyshev UCL	3.0705E-4					99% KM Chebyshev UCL	4.0250E-4
510												
511	**Gamma GOF Tests on Detected Observations Only**											
512					A-D Test Statistic	0.581	**Anderson-Darling GOF Test**					
513					5% A-D Critical Value	0.714	Detected data appear Gamma Distributed at 5% Significance Level					
514					K-S Test Statistic	0.309	**Kolmogorov-Smirnov GOF**					
515					5% K-S Critical Value	0.314	Detected data appear Gamma Distributed at 5% Significance Level					
516	**Detected data appear Gamma Distributed at 5% Significance Level**											
517	**Note GOF tests may be unreliable for small sample sizes**											
518												
519	**Gamma Statistics on Detected Data Only**											
520					k hat (MLE)	2.473					k star (bias corrected MLE)	1.509
521					Theta hat (MLE)	1.0975E-4					Theta star (bias corrected MLE)	1.7993E-4
522					nu hat (MLE)	34.63					nu star (bias corrected)	21.12
523					Mean (detects)	2.7143E-4						
524												
525	**Gamma ROS Statistics using Imputed Non-Detects**											
526	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
527	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
528	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
529	This is especially true when the sample size is small.											
530	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
531					Minimum	1.0000E-4					Mean	0.00738
532					Maximum	0.01					Median	0.01
533					SD	0.0044					CV	0.596
534					k hat (MLE)	0.816					k star (bias corrected MLE)	0.748
535					Theta hat (MLE)	0.00904					Theta star (bias corrected MLE)	0.00987
536					nu hat (MLE)	42.44					nu star (bias corrected)	38.87
537					Adjusted Level of Significance (β)	0.0398						
538					Approximate Chi Square Value (38.87, α)	25.59					Adjusted Chi Square Value (38.87, β)	24.88
539					95% Gamma Approximate UCL	0.0112					95% Gamma Adjusted UCL	0.0115
540												

	A	B	C	D	E	F	G	H	I	J	K	L
541	**Estimates of Gamma Parameters using KM Estimates**											
542					Mean (KM)	1.4615E-4				SD (KM)		1.2163E-4
543					Variance (KM)	1.4793E-8				SE of Mean (KM)		2.5764E-5
544					k hat (KM)	1.444				k star (KM)		1.303
545					nu hat (KM)	75.09				nu star (KM)		67.76
546					theta hat (KM)	1.0121E-4				theta star (KM)		1.1216E-4
547					80% gamma percentile (KM)	2.2953E-4				90% gamma percentile (KM)		3.1525E-4
548					95% gamma percentile (KM)	3.9929E-4				99% gamma percentile (KM)		5.9085E-4
549												
550	**Gamma Kaplan-Meier (KM) Statistics**											
551					Approximate Chi Square Value (67.76, α)	49.81				Adjusted Chi Square Value (67.76, β)		48.8
552					95% KM Approximate Gamma UCL	1.9881E-4				95% KM Adjusted Gamma UCL		2.0295E-4
553												
554	**Lognormal GOF Test on Detected Observations Only**											
555					Shapiro Wilk Test Statistic	0.873	**Shapiro Wilk GOF Test**					
556					10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level					
557					Lilliefors Test Statistic	0.265	**Lilliefors GOF Test**					
558					10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level					
559	**Detected Data appear Lognormal at 10% Significance Level**											
560	**Note GOF tests may be unreliable for small sample sizes**											
561												
562	**Lognormal ROS Statistics Using Imputed Non-Detects**											
563					Mean in Original Scale	9.1201E-5				Mean in Log Scale		-10.3
564					SD in Original Scale	1.4866E-4				SD in Log Scale		1.468
565					95% t UCL (assumes normality of ROS data)	1.4100E-4				95% Percentile Bootstrap UCL		1.4227E-4
566					95% BCA Bootstrap UCL	1.5700E-4				95% Bootstrap t UCL		1.9688E-4
567					95% H-UCL (Log ROS)	2.5127E-4						
568												
569	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
570					KM Mean (logged)	-9				KM Geo Mean		1.2347E-4
571					KM SD (logged)	0.484				95% Critical H Value (KM-Log)		1.951
572					KM Standard Error of Mean (logged)	0.102				95% H-UCL (KM -Log)		1.6764E-4
573					KM SD (logged)	0.484				95% Critical H Value (KM-Log)		1.951
574					KM Standard Error of Mean (logged)	0.102						
575												
576	**DL/2 Statistics**											
577	**DL/2 Normal**						**DL/2 Log-Transformed**					
578					Mean in Original Scale	1.1538E-4				Mean in Log Scale		-9.426
579					SD in Original Scale	1.3767E-4				SD in Log Scale		0.741
580					95% t UCL (Assumes normality)	1.6150E-4				95% H-Stat UCL		1.4683E-4
581	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
582												
583	**Nonparametric Distribution Free UCL Statistics**											
584	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
585												
586	**Suggested UCL to Use**											
587					95% KM (t) UCL	1.9016E-4						
588												
589	When a data set follows an approximate distribution passing only one of the GOF tests,											
590	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
591												
592	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
593	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
594	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											

	A	B	C	D	E	F	G	H	I	J	K	L
595												
596												
597	**RAAFLake_PFOS+PFHxS**											
598												
599	**General Statistics**											
600	Total Number of Observations					28	Number of Distinct Observations					28
601							Number of Missing Observations					0
602	Minimum					0.031	Mean					2.824
603	Maximum					13.9	Median					1.902
604	SD					3.136	Std. Error of Mean					0.593
605	Coefficient of Variation					1.111	Skewness					2.261
606												
607	**Normal GOF Test**											
608	Shapiro Wilk Test Statistic					0.752	**Shapiro Wilk GOF Test**					
609	1% Shapiro Wilk Critical Value					0.896	Data Not Normal at 1% Significance Level					
610	Lilliefors Test Statistic					0.223	**Lilliefors GOF Test**					
611	1% Lilliefors Critical Value					0.191	Data Not Normal at 1% Significance Level					
612	**Data Not Normal at 1% Significance Level**											
613												
614	**Assuming Normal Distribution**											
615	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
616	95% Student's-t UCL					3.833	95% Adjusted-CLT UCL (Chen-1995)					4.069
617							95% Modified-t UCL (Johnson-1978)					3.875
618												
619	**Gamma GOF Test**											
620	A-D Test Statistic					0.225	**Anderson-Darling Gamma GOF Test**					
621	5% A-D Critical Value					0.777	Detected data appear Gamma Distributed at 5% Significance Level					
622	K-S Test Statistic					0.108	**Kolmogorov-Smirnov Gamma GOF Test**					
623	5% K-S Critical Value					0.171	Detected data appear Gamma Distributed at 5% Significance Level					
624	**Detected data appear Gamma Distributed at 5% Significance Level**											
625												
626	**Gamma Statistics**											
627	k hat (MLE)					0.925	k star (bias corrected MLE)					0.85
628	Theta hat (MLE)					3.052	Theta star (bias corrected MLE)					3.323
629	nu hat (MLE)					51.81	nu star (bias corrected)					47.59
630	MLE Mean (bias corrected)					2.824	MLE Sd (bias corrected)					3.063
631							Approximate Chi Square Value (0.05)					32.76
632	Adjusted Level of Significance					0.0404	Adjusted Chi Square Value					31.99
633												
634	**Assuming Gamma Distribution**											
635	95% Approximate Gamma UCL					4.102	95% Adjusted Gamma UCL					4.2
636												
637	**Lognormal GOF Test**											
638	Shapiro Wilk Test Statistic					0.934	**Shapiro Wilk Lognormal GOF Test**					
639	10% Shapiro Wilk Critical Value					0.936	Data Not Lognormal at 10% Significance Level					
640	Lilliefors Test Statistic					0.15	**Lilliefors Lognormal GOF Test**					
641	10% Lilliefors Critical Value					0.151	Data appear Lognormal at 10% Significance Level					
642	**Data appear Approximate Lognormal at 10% Significance Level**											
643												
644	**Lognormal Statistics**											
645	Minimum of Logged Data					-3.474	Mean of logged Data					0.408
646	Maximum of Logged Data					2.632	SD of logged Data					1.357
647												
648	**Assuming Lognormal Distribution**											

649					95% H-UCL	8.114				90% Chebyshev (MVUE) UCL		6.92
650				95% Chebyshev (MVUE) UCL		8.439				97.5% Chebyshev (MVUE) UCL		10.55
651				99% Chebyshev (MVUE) UCL		14.69						
652												
653	**Nonparametric Distribution Free UCL Statistics**											
654	**Data appear to follow a Discernible Distribution**											
655												
656	**Nonparametric Distribution Free UCLs**											
657					95% CLT UCL	3.798				95% BCA Bootstrap UCL		4.079
658				95% Standard Bootstrap UCL		3.767				95% Bootstrap-t UCL		4.3
659				95% Hall's Bootstrap UCL		5.437				95% Percentile Bootstrap UCL		3.795
660				90% Chebyshev(Mean, Sd) UCL		4.601				95% Chebyshev(Mean, Sd) UCL		5.407
661				97.5% Chebyshev(Mean, Sd) UCL		6.524				99% Chebyshev(Mean, Sd) UCL		8.72
662												
663	**Suggested UCL to Use**											
664					95% Adjusted Gamma UCL	4.2						
665												
666	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
667	**Please verify the data were collected from random locations.**											
668	**If the data were collected using judgmental or other non-random methods,**											
669	**then contact a statistician to correctly calculate UCLs.**											
670												
671	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
672	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
673	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
674												
675												
676	**RAAFLake_PFOS**											
677												
678	**General Statistics**											
679					Total Number of Observations	28				Number of Distinct Observations		28
680										Number of Missing Observations		0
681					Minimum	0.031				Mean		2.222
682					Maximum	10				Median		1.71
683					SD	2.457				Std. Error of Mean		0.464
684					Coefficient of Variation	1.106				Skewness		2.261
685												
686	**Normal GOF Test**											
687					Shapiro Wilk Test Statistic	0.731				**Shapiro Wilk GOF Test**		
688					1% Shapiro Wilk Critical Value	0.896				Data Not Normal at 1% Significance Level		
689					Lilliefors Test Statistic	0.188				**Lilliefors GOF Test**		
690					1% Lilliefors Critical Value	0.191				Data appear Normal at 1% Significance Level		
691	**Data appear Approximate Normal at 1% Significance Level**											
692												
693	**Assuming Normal Distribution**											
694					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
695					95% Student's-t UCL	3.013				95% Adjusted-CLT UCL (Chen-1995)		3.198
696										95% Modified-t UCL (Johnson-1978)		3.046
697												
698	**Gamma GOF Test**											
699					A-D Test Statistic	0.328				**Anderson-Darling Gamma GOF Test**		
700					5% A-D Critical Value	0.777				Detected data appear Gamma Distributed at 5% Significance Level		
701					K-S Test Statistic	0.0926				**Kolmogorov-Smirnov Gamma GOF Test**		
702					5% K-S Critical Value	0.171				Detected data appear Gamma Distributed at 5% Significance Level		

703	**Detected data appear Gamma Distributed at 5% Significance Level**											
704												
705	**Gamma Statistics**											
706						k hat (MLE)	0.927			k star (bias corrected MLE)		0.851
707						Theta hat (MLE)	2.398			Theta star (bias corrected MLE)		2.61
708						nu hat (MLE)	51.89			nu star (bias corrected)		47.66
709						MLE Mean (bias corrected)	2.222			MLE Sd (bias corrected)		2.408
710										Approximate Chi Square Value (0.05)		32.82
711						Adjusted Level of Significance	0.0404			Adjusted Chi Square Value		32.06
712												
713	**Assuming Gamma Distribution**											
714						95% Approximate Gamma UCL	3.227			95% Adjusted Gamma UCL		3.303
715												
716	**Lognormal GOF Test**											
717						Shapiro Wilk Test Statistic	0.922			**Shapiro Wilk Lognormal GOF Test**		
718						10% Shapiro Wilk Critical Value	0.936			Data Not Lognormal at 10% Significance Level		
719						Lilliefors Test Statistic	0.163			**Lilliefors Lognormal GOF Test**		
720						10% Lilliefors Critical Value	0.151			Data Not Lognormal at 10% Significance Level		
721	**Data Not Lognormal at 10% Significance Level**											
722												
723	**Lognormal Statistics**											
724						Minimum of Logged Data	-3.474			Mean of logged Data		0.17
725						Maximum of Logged Data	2.303			SD of logged Data		1.359
726												
727	**Assuming Lognormal Distribution**											
728						95% H-UCL	6.414			90% Chebyshev (MVUE) UCL		5.465
729						95% Chebyshev (MVUE) UCL	6.666			97.5% Chebyshev (MVUE) UCL		8.333
730						99% Chebyshev (MVUE) UCL	11.61					
731												
732	**Nonparametric Distribution Free UCL Statistics**											
733	**Data appear to follow a Discernible Distribution**											
734												
735	**Nonparametric Distribution Free UCLs**											
736						95% CLT UCL	2.986			95% BCA Bootstrap UCL		3.216
737						95% Standard Bootstrap UCL	2.959			95% Bootstrap-t UCL		3.513
738						95% Hall's Bootstrap UCL	6.901			95% Percentile Bootstrap UCL		2.998
739						90% Chebyshev(Mean, Sd) UCL	3.615			95% Chebyshev(Mean, Sd) UCL		4.246
740						97.5% Chebyshev(Mean, Sd) UCL	5.122			99% Chebyshev(Mean, Sd) UCL		6.842
741												
742	**Suggested UCL to Use**											
743						95% Student's-t UCL	3.013					
744												
745	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
746	**Please verify the data were collected from random locations.**											
747	**If the data were collected using judgmental or other non-random methods,**											
748	**then contact a statistician to correctly calculate UCLs.**											
749												
750	When a data set follows an approximate distribution passing only one of the GOF tests,											
751	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
752												
753	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
754	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
755	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
756												

	A	B	C	D	E	F	G	H	I	J	K	L
757	RAAFLake_PFOA											
758												
759	**General Statistics**											
760					Total Number of Observations	28			Number of Distinct Observations	24		
761					Number of Detects	25			Number of Non-Detects	3		
762					Number of Distinct Detects	23			Number of Distinct Non-Detects	1		
763					Minimum Detect	0.0024			Minimum Non-Detect	0.005		
764					Maximum Detect	0.32			Maximum Non-Detect	0.005		
765					Variance Detects	0.00409			Percent Non-Detects	10.71%		
766					Mean Detects	0.0392			SD Detects	0.0639		
767					Median Detects	0.021			CV Detects	1.631		
768					Skewness Detects	3.891			Kurtosis Detects	16.7		
769					Mean of Logged Detects	-3.848			SD of Logged Detects	1.06		
770												
771	**Normal GOF Test on Detects Only**											
772					Shapiro Wilk Test Statistic	0.501			**Shapiro Wilk GOF Test**			
773					1% Shapiro Wilk Critical Value	0.886			Detected Data Not Normal at 1% Significance Level			
774					Lilliefors Test Statistic	0.311			**Lilliefors GOF Test**			
775					1% Lilliefors Critical Value	0.201			Detected Data Not Normal at 1% Significance Level			
776	**Detected Data Not Normal at 1% Significance Level**											
777												
778	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
779					KM Mean	0.0353			KM Standard Error of Mean	0.0116		
780					90KM SD	0.0603			95% KM (BCA) UCL	0.0568		
781					95% KM (t) UCL	0.0551			95% KM (Percentile Bootstrap) UCL	0.0557		
782					95% KM (z) UCL	0.0544			95% KM Bootstrap t UCL	0.0949		
783					90% KM Chebyshev UCL	0.0701			95% KM Chebyshev UCL	0.0859		
784					97.5% KM Chebyshev UCL	0.108			99% KM Chebyshev UCL	0.151		
785												
786	**Gamma GOF Tests on Detected Observations Only**											
787					A-D Test Statistic	1.264			**Anderson-Darling GOF Test**			
788					5% A-D Critical Value	0.775			Detected Data Not Gamma Distributed at 5% Significance Level			
789					K-S Test Statistic	0.228			**Kolmogorov-Smirnov GOF**			
790					5% K-S Critical Value	0.18			Detected Data Not Gamma Distributed at 5% Significance Level			
791	**Detected Data Not Gamma Distributed at 5% Significance Level**											
792												
793	**Gamma Statistics on Detected Data Only**											
794					k hat (MLE)	0.954			k star (bias corrected MLE)	0.866		
795					Theta hat (MLE)	0.0411			Theta star (bias corrected MLE)	0.0452		
796					nu hat (MLE)	47.71			nu star (bias corrected)	43.32		
797					Mean (detects)	0.0392						
798												
799	**Gamma ROS Statistics using Imputed Non-Detects**											
800	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
801	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
802	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
803	This is especially true when the sample size is small.											
804	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
805					Minimum	0.0024			Mean	0.0361		
806					Maximum	0.32			Median	0.0195		
807					SD	0.061			CV	1.69		
808					k hat (MLE)	0.957			k star (bias corrected MLE)	0.878		
809					Theta hat (MLE)	0.0377			Theta star (bias corrected MLE)	0.0411		
810					nu hat (MLE)	53.6			nu star (bias corrected)	49.19		

811	Adjusted Level of Significance (β)					0.0404						
812	Approximate Chi Square Value (49.19, α)					34.09	Adjusted Chi Square Value (49.19, β)					33.31
813	95% Gamma Approximate UCL					0.052	95% Gamma Adjusted UCL					0.0533
814												
815	**Estimates of Gamma Parameters using KM Estimates**											
816	Mean (KM)					0.0353	SD (KM)					0.0603
817	Variance (KM)					0.00363	SE of Mean (KM)					0.0116
818	k hat (KM)					0.343	k star (KM)					0.33
819	nu hat (KM)					19.19	nu star (KM)					18.46
820	theta hat (KM)					0.103	theta star (KM)					0.107
821	80% gamma percentile (KM)					0.0552	90% gamma percentile (KM)					0.103
822	95% gamma percentile (KM)					0.156	99% gamma percentile (KM)					0.294
823												
824	**Gamma Kaplan-Meier (KM) Statistics**											
825	Approximate Chi Square Value (18.46, α)					9.727	Adjusted Chi Square Value (18.46, β)					9.335
826	95% KM Approximate Gamma UCL					0.0669	95% KM Adjusted Gamma UCL					0.0698
827												
828	**Lognormal GOF Test on Detected Observations Only**											
829	Shapiro Wilk Test Statistic					0.956	**Shapiro Wilk GOF Test**					
830	10% Shapiro Wilk Critical Value					0.931	Detected Data appear Lognormal at 10% Significance Level					
831	Lilliefors Test Statistic					0.146	**Lilliefors GOF Test**					
832	10% Lilliefors Critical Value					0.159	Detected Data appear Lognormal at 10% Significance Level					
833	**Detected Data appear Lognormal at 10% Significance Level**											
834												
835	**Lognormal ROS Statistics Using Imputed Non-Detects**											
836	Mean in Original Scale					0.0353	Mean in Log Scale					-4.054
837	SD in Original Scale					0.0613	SD in Log Scale					1.174
838	95% t UCL (assumes normality of ROS data)					0.0551	95% Percentile Bootstrap UCL					0.0562
839	95% BCA Bootstrap UCL					0.0653	95% Bootstrap t UCL					0.0873
840	95% H-UCL (Log ROS)					0.0632						
841												
842	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
843	KM Mean (logged)					-4.075	KM Geo Mean					0.017
844	KM SD (logged)					1.181	95% Critical H Value (KM-Log)					2.687
845	KM Standard Error of Mean (logged)					0.228	95% H-UCL (KM -Log)					0.0629
846	KM SD (logged)					1.181	95% Critical H Value (KM-Log)					2.687
847	KM Standard Error of Mean (logged)					0.228						
848												
849	**DL/2 Statistics**											
850	**DL/2 Normal**						**DL/2 Log-Transformed**					
851	Mean in Original Scale					0.0353	Mean in Log Scale					-4.077
852	SD in Original Scale					0.0614	SD in Log Scale					1.206
853	95% t UCL (Assumes normality)					0.055	95% H-Stat UCL					0.066
854	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
855												
856	**Nonparametric Distribution Free UCL Statistics**											
857	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
858												
859	**Suggested UCL to Use**											
860	KM H-UCL					0.0629						
861												
862	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
863	**Please verify the data were collected from random locations.**											
864	**If the data were collected using judgmental or other non-random methods,**											

865	**then contact a statistician to correctly calculate UCLs.**											
866												
867	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
868	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
869	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
870												
871	**Drains_PFOS+PFHxS**											
872												
873	**General Statistics**											
874	Total Number of Observations					24		Number of Distinct Observations				18
875	Number of Detects					17		Number of Non-Detects				7
876	Number of Distinct Detects					17		Number of Distinct Non-Detects				1
877	Minimum Detect					0.0064		Minimum Non-Detect				0.005
878	Maximum Detect					1.23		Maximum Non-Detect				0.005
879	Variance Detects					0.0893		Percent Non-Detects				29.17%
880	Mean Detects					0.188		SD Detects				0.299
881	Median Detects					0.0784		CV Detects				1.592
882	Skewness Detects					2.961		Kurtosis Detects				9.95
883	Mean of Logged Detects					-2.669		SD of Logged Detects				1.559
884												
885	**Normal GOF Test on Detects Only**											
886	Shapiro Wilk Test Statistic					0.621		**Shapiro Wilk GOF Test**				
887	1% Shapiro Wilk Critical Value					0.851		Detected Data Not Normal at 1% Significance Level				
888	Lilliefors Test Statistic					0.272		**Lilliefors GOF Test**				
889	1% Lilliefors Critical Value					0.241		Detected Data Not Normal at 1% Significance Level				
890	**Detected Data Not Normal at 1% Significance Level**											
891												
892	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
893	KM Mean					0.134		KM Standard Error of Mean				0.0542
894	90KM SD					0.258		95% KM (BCA) UCL				0.224
895	95% KM (t) UCL					0.227		95% KM (Percentile Bootstrap) UCL				0.225
896	95% KM (z) UCL					0.224		95% KM Bootstrap t UCL				0.343
897	90% KM Chebyshev UCL					0.297		95% KM Chebyshev UCL				0.371
898	97.5% KM Chebyshev UCL					0.473		99% KM Chebyshev UCL				0.674
899												
900	**Gamma GOF Tests on Detected Observations Only**											
901	A-D Test Statistic					0.376		**Anderson-Darling GOF Test**				
902	5% A-D Critical Value					0.788		Detected data appear Gamma Distributed at 5% Significance Level				
903	K-S Test Statistic					0.144		**Kolmogorov-Smirnov GOF**				
904	5% K-S Critical Value					0.219		Detected data appear Gamma Distributed at 5% Significance Level				
905	**Detected data appear Gamma Distributed at 5% Significance Level**											
906												
907	**Gamma Statistics on Detected Data Only**											
908	k hat (MLE)					0.618		k star (bias corrected MLE)				0.548
909	Theta hat (MLE)					0.304		Theta star (bias corrected MLE)				0.343
910	nu hat (MLE)					21		nu star (bias corrected)				18.63
911	Mean (detects)					0.188						
912												
913	**Gamma ROS Statistics using Imputed Non-Detects**											
914	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
915	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
916	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
917	This is especially true when the sample size is small.											
918	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											

919					Minimum	0.0064					Mean	0.136
920					Maximum	1.23					Median	0.0295
921					SD	0.263					CV	1.932
922					k hat (MLE)	0.511					k star (bias corrected MLE)	0.475
923					Theta hat (MLE)	0.266					Theta star (bias corrected MLE)	0.286
924					nu hat (MLE)	24.55					nu star (bias corrected)	22.81
925					Adjusted Level of Significance (β)	0.0392						
926					Approximate Chi Square Value (22.81, α)	12.95					Adjusted Chi Square Value (22.81, β)	12.43
927					95% Gamma Approximate UCL	0.239					95% Gamma Adjusted UCL	0.249
928												
929					**Estimates of Gamma Parameters using KM Estimates**							
930					Mean (KM)	0.134					SD (KM)	0.258
931					Variance (KM)	0.0664					SE of Mean (KM)	0.0542
932					k hat (KM)	0.272					k star (KM)	0.266
933					nu hat (KM)	13.06					nu star (KM)	12.76
934					theta hat (KM)	0.494					theta star (KM)	0.506
935					80% gamma percentile (KM)	0.199					90% gamma percentile (KM)	0.402
936					95% gamma percentile (KM)	0.639					99% gamma percentile (KM)	1.265
937												
938					**Gamma Kaplan-Meier (KM) Statistics**							
939					Approximate Chi Square Value (12.76, α)	5.733					Adjusted Chi Square Value (12.76, β)	5.404
940					95% KM Approximate Gamma UCL	0.299					95% KM Adjusted Gamma UCL	0.318
941												
942					**Lognormal GOF Test on Detected Observations Only**							
943					Shapiro Wilk Test Statistic	0.962					**Shapiro Wilk GOF Test**	
944					10% Shapiro Wilk Critical Value	0.91					Detected Data appear Lognormal at 10% Significance Level	
945					Lilliefors Test Statistic	0.113					**Lilliefors GOF Test**	
946					10% Lilliefors Critical Value	0.19					Detected Data appear Lognormal at 10% Significance Level	
947					**Detected Data appear Lognormal at 10% Significance Level**							
948												
949					**Lognormal ROS Statistics Using Imputed Non-Detects**							
950					Mean in Original Scale	0.134					Mean in Log Scale	-3.78
951					SD in Original Scale	0.264					SD in Log Scale	2.25
952					95% t UCL (assumes normality of ROS data)	0.226					95% Percentile Bootstrap UCL	0.227
953					95% BCA Bootstrap UCL	0.28					95% Bootstrap t UCL	0.331
954					95% H-UCL (Log ROS)	2.385						
955												
956					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
957					KM Mean (logged)	-3.436					KM Geo Mean	0.0322
958					KM SD (logged)	1.746					95% Critical H Value (KM-Log)	3.669
959					KM Standard Error of Mean (logged)	0.367					95% H-UCL (KM -Log)	0.563
960					KM SD (logged)	1.746					95% Critical H Value (KM-Log)	3.669
961					KM Standard Error of Mean (logged)	0.367						
962												
963					**DL/2 Statistics**							
964					**DL/2 Normal**						**DL/2 Log-Transformed**	
965					Mean in Original Scale	0.134					Mean in Log Scale	-3.638
966					SD in Original Scale	0.264					SD in Log Scale	2.018
967					95% t UCL (Assumes normality)	0.226					95% H-Stat UCL	1.14
968					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
969												
970					**Nonparametric Distribution Free UCL Statistics**							
971					**Detected Data appear Gamma Distributed at 5% Significance Level**							
972												

	A	B	C	D	E	F	G	H	I	J	K	L
973	**Suggested UCL to Use**											
974				95% KM Adjusted Gamma UCL		0.318						
975												
976	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
977	**Please verify the data were collected from random locations.**											
978	**If the data were collected using judgmental or other non-random methods,**											
979	**then contact a statistician to correctly calculate UCLs.**											
980												
981	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
982	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
983	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
984												
985	**Drains_PFOS**											
986												
987	**General Statistics**											
988				Total Number of Observations		24			Number of Distinct Observations			18
989				Number of Detects		17			Number of Non-Detects			7
990				Number of Distinct Detects		17			Number of Distinct Non-Detects			1
991				Minimum Detect		0.0064			Minimum Non-Detect			0.005
992				Maximum Detect		1			Maximum Non-Detect			0.005
993				Variance Detects		0.0616			Percent Non-Detects			29.17%
994				Mean Detects		0.167			SD Detects			0.248
995				Median Detects		0.071			CV Detects			1.489
996				Skewness Detects		2.667			Kurtosis Detects			8.143
997				Mean of Logged Detects		-2.735			SD of Logged Detects			1.519
998												
999	**Normal GOF Test on Detects Only**											
1000				Shapiro Wilk Test Statistic		0.664			**Shapiro Wilk GOF Test**			
1001				1% Shapiro Wilk Critical Value		0.851			Detected Data Not Normal at 1% Significance Level			
1002				Lilliefors Test Statistic		0.259			**Lilliefors GOF Test**			
1003				1% Lilliefors Critical Value		0.241			Detected Data Not Normal at 1% Significance Level			
1004	**Detected Data Not Normal at 1% Significance Level**											
1005												
1006	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1007				KM Mean		0.119			KM Standard Error of Mean			0.0453
1008				90KM SD		0.216			95% KM (BCA) UCL			0.195
1009				95% KM (t) UCL		0.197			95% KM (Percentile Bootstrap) UCL			0.195
1010				95% KM (z) UCL		0.194			95% KM Bootstrap t UCL			0.28
1011				90% KM Chebyshev UCL		0.256			95% KM Chebyshev UCL			0.317
1012				97.5% KM Chebyshev UCL		0.403			99% KM Chebyshev UCL			0.571
1013												
1014	**Gamma GOF Tests on Detected Observations Only**											
1015				A-D Test Statistic		0.355			**Anderson-Darling GOF Test**			
1016				5% A-D Critical Value		0.785			Detected data appear Gamma Distributed at 5% Significance Level			
1017				K-S Test Statistic		0.143			**Kolmogorov-Smirnov GOF**			
1018				5% K-S Critical Value		0.219			Detected data appear Gamma Distributed at 5% Significance Level			
1019	**Detected data appear Gamma Distributed at 5% Significance Level**											
1020												
1021	**Gamma Statistics on Detected Data Only**											
1022				k hat (MLE)		0.648			k star (bias corrected MLE)			0.573
1023				Theta hat (MLE)		0.257			Theta star (bias corrected MLE)			0.291
1024				nu hat (MLE)		22.04			nu star (bias corrected)			19.48
1025				Mean (detects)		0.167						
1026												

1027	**Gamma ROS Statistics using Imputed Non-Detects**											
1028	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1029	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1030	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1031	This is especially true when the sample size is small.											
1032	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1033						Minimum	0.0064				Mean	0.121
1034						Maximum	1				Median	0.0275
1035						SD	0.219				CV	1.814
1036						k hat (MLE)	0.538				k star (bias corrected MLE)	0.498
1037						Theta hat (MLE)	0.225				Theta star (bias corrected MLE)	0.243
1038						nu hat (MLE)	25.82				nu star (bias corrected)	23.92
1039						Adjusted Level of Significance (β)	0.0392					
1040						Approximate Chi Square Value (23.92, α)	13.79				Adjusted Chi Square Value (23.92, β)	13.25
1041						95% Gamma Approximate UCL	0.21				95% Gamma Adjusted UCL	0.218
1042												
1043	**Estimates of Gamma Parameters using KM Estimates**											
1044						Mean (KM)	0.119				SD (KM)	0.216
1045						Variance (KM)	0.0464				SE of Mean (KM)	0.0453
1046						k hat (KM)	0.307				k star (KM)	0.297
1047						nu hat (KM)	14.76				nu star (KM)	14.25
1048						theta hat (KM)	0.389				theta star (KM)	0.403
1049						80% gamma percentile (KM)	0.183				90% gamma percentile (KM)	0.353
1050						95% gamma percentile (KM)	0.548				99% gamma percentile (KM)	1.058
1051												
1052	**Gamma Kaplan-Meier (KM) Statistics**											
1053						Approximate Chi Square Value (14.25, α)	6.74				Adjusted Chi Square Value (14.25, β)	6.378
1054						95% KM Approximate Gamma UCL	0.253				95% KM Adjusted Gamma UCL	0.267
1055												
1056	**Lognormal GOF Test on Detected Observations Only**											
1057						Shapiro Wilk Test Statistic	0.962				**Shapiro Wilk GOF Test**	
1058						10% Shapiro Wilk Critical Value	0.91				Detected Data appear Lognormal at 10% Significance Level	
1059						Lilliefors Test Statistic	0.108				**Lilliefors GOF Test**	
1060						10% Lilliefors Critical Value	0.19				Detected Data appear Lognormal at 10% Significance Level	
1061	**Detected Data appear Lognormal at 10% Significance Level**											
1062												
1063	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1064						Mean in Original Scale	0.119				Mean in Log Scale	-3.819
1065						SD in Original Scale	0.221				SD in Log Scale	2.195
1066						95% t UCL (assumes normality of ROS data)	0.196				95% Percentile Bootstrap UCL	0.196
1067						95% BCA Bootstrap UCL	0.233				95% Bootstrap t UCL	0.271
1068						95% H-UCL (Log ROS)	1.846					
1069												
1070	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1071						KM Mean (logged)	-3.482				KM Geo Mean	0.0307
1072						KM SD (logged)	1.702				95% Critical H Value (KM-Log)	3.596
1073						KM Standard Error of Mean (logged)	0.358				95% H-UCL (KM -Log)	0.469
1074						KM SD (logged)	1.702				95% Critical H Value (KM-Log)	3.596
1075						KM Standard Error of Mean (logged)	0.358					
1076												
1077	**DL/2 Statistics**											
1078	**DL/2 Normal**										**DL/2 Log-Transformed**	
1079						Mean in Original Scale	0.119				Mean in Log Scale	-3.685
1080						SD in Original Scale	0.221				SD in Log Scale	1.973

1081				95% t UCL (Assumes normality)		0.196					95% H-Stat UCL	0.928
1082	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1083												
1084	**Nonparametric Distribution Free UCL Statistics**											
1085	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1086												
1087	**Suggested UCL to Use**											
1088				95% KM Adjusted Gamma UCL		0.267						
1089												
1090	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1091	**Please verify the data were collected from random locations.**											
1092	**If the data were collected using judgmental or other non-random methods,**											
1093	**then contact a statistician to correctly calculate UCLs.**											
1094												
1095	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1096	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1097	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1098												
1099	**Drains_PFOA**											
1100												
1101	**General Statistics**											
1102				Total Number of Observations		24					Number of Distinct Observations	5
1103				Number of Detects		4					Number of Non-Detects	20
1104				Number of Distinct Detects		4					Number of Distinct Non-Detects	1
1105				Minimum Detect		0.0057					Minimum Non-Detect	0.005
1106				Maximum Detect		0.026					Maximum Non-Detect	0.005
1107				Variance Detects		8.4927E-5					Percent Non-Detects	83.33%
1108				Mean Detects		0.013					SD Detects	0.00922
1109				Median Detects		0.0102					CV Detects	0.709
1110				Skewness Detects		1.382					Kurtosis Detects	1.5
1111				Mean of Logged Detects		-4.52					SD of Logged Detects	0.675
1112												
1113	**Normal GOF Test on Detects Only**											
1114				Shapiro Wilk Test Statistic		0.872					**Shapiro Wilk GOF Test**	
1115				1% Shapiro Wilk Critical Value		0.687					Detected Data appear Normal at 1% Significance Level	
1116				Lilliefors Test Statistic		0.25					**Lilliefors GOF Test**	
1117				1% Lilliefors Critical Value		0.413					Detected Data appear Normal at 1% Significance Level	
1118	**Detected Data appear Normal at 1% Significance Level**											
1119	**Note GOF tests may be unreliable for small sample sizes**											
1120												
1121	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1122				KM Mean		0.00633					KM Standard Error of Mean	0.00104
1123				90KM SD		0.00442					95% KM (BCA) UCL	N/A
1124				95% KM (t) UCL		0.00812					95% KM (Percentile Bootstrap) UCL	N/A
1125				95% KM (z) UCL		0.00805					95% KM Bootstrap t UCL	N/A
1126				90% KM Chebyshev UCL		0.00946					95% KM Chebyshev UCL	0.0109
1127				97.5% KM Chebyshev UCL		0.0128					99% KM Chebyshev UCL	0.0167
1128												
1129	**Gamma GOF Tests on Detected Observations Only**											
1130				A-D Test Statistic		0.31					**Anderson-Darling GOF Test**	
1131				5% A-D Critical Value		0.659					Detected data appear Gamma Distributed at 5% Significance Level	
1132				K-S Test Statistic		0.26					**Kolmogorov-Smirnov GOF**	
1133				5% K-S Critical Value		0.397					Detected data appear Gamma Distributed at 5% Significance Level	
1134	**Detected data appear Gamma Distributed at 5% Significance Level**											

1135	**Note GOF tests may be unreliable for small sample sizes**											
1136												
1137	**Gamma Statistics on Detected Data Only**											
1138						k hat (MLE)	2.979			k star (bias corrected MLE)	0.912	
1139						Theta hat (MLE)	0.00436			Theta star (bias corrected MLE)	0.0143	
1140						nu hat (MLE)	23.84			nu star (bias corrected)	7.292	
1141						Mean (detects)	0.013					
1142												
1143	**Gamma ROS Statistics using Imputed Non-Detects**											
1144	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1145	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1146	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1147	This is especially true when the sample size is small.											
1148	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1149						Minimum	0.0057			Mean	0.0105	
1150						Maximum	0.026			Median	0.01	
1151						SD	0.00352			CV	0.335	
1152						k hat (MLE)	14.62			k star (bias corrected MLE)	12.82	
1153						Theta hat (MLE)	7.1800E-4			Theta star (bias corrected MLE)	8.1879E-4	
1154						nu hat (MLE)	702			nu star (bias corrected)	615.5	
1155						Adjusted Level of Significance (β)	0.0392					
1156						Approximate Chi Square Value (615.54, α)	559			Adjusted Chi Square Value (615.54, β)	555.2	
1157						95% Gamma Approximate UCL	0.0116			95% Gamma Adjusted UCL	N/A	
1158												
1159	**Estimates of Gamma Parameters using KM Estimates**											
1160						Mean (KM)	0.00633			SD (KM)	0.00442	
1161						Variance (KM)	1.9505E-5			SE of Mean (KM)	0.00104	
1162						k hat (KM)	2.056			k star (KM)	1.827	
1163						nu hat (KM)	98.71			nu star (KM)	87.71	
1164						theta hat (KM)	0.00308			theta star (KM)	0.00347	
1165						80% gamma percentile (KM)	0.00958			90% gamma percentile (KM)	0.0126	
1166						95% gamma percentile (KM)	0.0155			99% gamma percentile (KM)	0.0219	
1167												
1168	**Gamma Kaplan-Meier (KM) Statistics**											
1169						Approximate Chi Square Value (87.71, α)	67.12			Adjusted Chi Square Value (87.71, β)	65.85	
1170						95% KM Approximate Gamma UCL	0.00828			95% KM Adjusted Gamma UCL	0.00844	
1171												
1172	**Lognormal GOF Test on Detected Observations Only**											
1173						Shapiro Wilk Test Statistic	0.95			**Shapiro Wilk GOF Test**		
1174						10% Shapiro Wilk Critical Value	0.792			Detected Data appear Lognormal at 10% Significance Level		
1175						Lilliefors Test Statistic	0.223			**Lilliefors GOF Test**		
1176						10% Lilliefors Critical Value	0.346			Detected Data appear Lognormal at 10% Significance Level		
1177	**Detected Data appear Lognormal at 10% Significance Level**											
1178	**Note GOF tests may be unreliable for small sample sizes**											
1179												
1180	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1181						Mean in Original Scale	0.00271			Mean in Log Scale	-7.59	
1182						SD in Original Scale	0.0058			SD in Log Scale	2.004	
1183						95% t UCL (assumes normality of ROS data)	0.00474			95% Percentile Bootstrap UCL	0.00476	
1184						95% BCA Bootstrap UCL	0.00591			95% Bootstrap t UCL	0.00792	
1185						95% H-UCL (Log ROS)	0.0208					
1186												
1187	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1188						KM Mean (logged)	-5.169			KM Geo Mean	0.00569	

	A	B	C	D	E	F	G	H	I	J	K	L
1189	KM SD (logged)					0.376	95% Critical H Value (KM-Log)					1.879
1190	KM Standard Error of Mean (logged)					0.0886	95% H-UCL (KM -Log)					0.00708
1191	KM SD (logged)					0.376	95% Critical H Value (KM-Log)					1.879
1192	KM Standard Error of Mean (logged)					0.0886						
1193												
1194	**DL/2 Statistics**											
1195	**DL/2 Normal**						**DL/2 Log-Transformed**					
1196	Mean in Original Scale					0.00425	Mean in Log Scale					-5.746
1197	SD in Original Scale					0.0052	SD in Log Scale					0.611
1198	95% t UCL (Assumes normality)					0.00607	95% H-Stat UCL					0.00502
1199	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1200												
1201	**Nonparametric Distribution Free UCL Statistics**											
1202	**Detected Data appear Normal Distributed at 1% Significance Level**											
1203												
1204	**Suggested UCL to Use**											
1205	95% KM (t) UCL					0.00812						
1206												
1207	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1208	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1209	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1210												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 25/11/2025 12:46:19 PM
From File	WorkSheet_h.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Accessible_PFOS+PFHxS_All_NoneMajorSources

General Statistics

Total Number of Observations	388	Number of Distinct Observations	186
Number of Detects	302	Number of Non-Detects	86
Number of Distinct Detects	186	Number of Distinct Non-Detects	1
Minimum Detect	0.0014	Minimum Non-Detect	0.005
Maximum Detect	4.268	Maximum Non-Detect	0.005
Variance Detects	0.128	Percent Non-Detects	22.16%
Mean Detects	0.128	SD Detects	0.358
Median Detects	0.029	CV Detects	2.79
Skewness Detects	7.369	Kurtosis Detects	70.69
Mean of Logged Detects	-3.323	SD of Logged Detects	1.439

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.369	**Normal GOF Test on Detected Observations Only**
1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.361	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.0594	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.101	KM Standard Error of Mean	0.0163
90KM SD	0.32	95% KM (BCA) UCL	0.131
95% KM (t) UCL	0.127	95% KM (Percentile Bootstrap) UCL	0.13
95% KM (z) UCL	0.127	95% KM Bootstrap t UCL	0.14
90% KM Chebyshev UCL	0.149	95% KM Chebyshev UCL	0.171
97.5% KM Chebyshev UCL	0.202	99% KM Chebyshev UCL	0.262

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	19.23	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.822	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.173	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0549	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.5	k star (bias corrected MLE)	0.497
Theta hat (MLE)	0.257	Theta star (bias corrected MLE)	0.258
nu hat (MLE)	302	nu star (bias corrected)	300.3
Mean (detects)	0.128		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58					Minimum	0.0014				Mean		0.102
59					Maximum	4.268				Median		0.016
60					SD	0.32				CV		3.13
61					k hat (MLE)	0.482				k star (bias corrected MLE)		0.48
62					Theta hat (MLE)	0.212				Theta star (bias corrected MLE)		0.213
63					nu hat (MLE)	373.9				nu star (bias corrected)		372.4
64					Adjusted Level of Significance (β)	0.0494						
65					Approximate Chi Square Value (372.36, α)	328.6				Adjusted Chi Square Value (372.36, β)		328.5
66					95% Gamma Approximate UCL	0.116				95% Gamma Adjusted UCL		0.116
67												
68	**Estimates of Gamma Parameters using KM Estimates**											
69					Mean (KM)	0.101				SD (KM)		0.32
70					Variance (KM)	0.102				SE of Mean (KM)		0.0163
71					k hat (KM)	0.099				k star (KM)		0.0999
72					nu hat (KM)	76.82				nu star (KM)		77.55
73					theta hat (KM)	1.016				theta star (KM)		1.006
74					80% gamma percentile (KM)	0.0697				90% gamma percentile (KM)		0.268
75					95% gamma percentile (KM)	0.584				99% gamma percentile (KM)		1.598
76												
77	**Gamma Kaplan-Meier (KM) Statistics**											
78					Approximate Chi Square Value (77.55, α)	58.27				Adjusted Chi Square Value (77.55, β)		58.21
79					95% KM Approximate Gamma UCL	0.134				95% KM Adjusted Gamma UCL		0.134
80												
81	**Lognormal GOF Test on Detected Observations Only**											
82					Shapiro Wilk Approximate Test Statistic	0.948				**Shapiro Wilk GOF Test**		
83					10% Shapiro Wilk P Value	4.326E-12				Detected Data Not Lognormal at 10% Significance Level		
84					Lilliefors Test Statistic	0.0922				**Lilliefors GOF Test**		
85					10% Lilliefors Critical Value	0.047				Detected Data Not Lognormal at 10% Significance Level		
86	**Detected Data Not Lognormal at 10% Significance Level**											
87												
88	**Lognormal ROS Statistics Using Imputed Non-Detects**											
89					Mean in Original Scale	0.1				Mean in Log Scale		-4.019
90					SD in Original Scale	0.32				SD in Log Scale		1.865
91					95% t UCL (assumes normality of ROS data)	0.127				95% Percentile Bootstrap UCL		0.127
92					95% BCA Bootstrap UCL	0.135				95% Bootstrap t UCL		0.139
93					95% H-UCL (Log ROS)	0.136						
94												
95	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
96					KM Mean (logged)	-3.88				KM Geo Mean		0.0207
97					KM SD (logged)	1.649				95% Critical H Value (KM-Log)		2.739
98					KM Standard Error of Mean (logged)	0.0896				95% H-UCL (KM -Log)		0.101
99					KM SD (logged)	1.649				95% Critical H Value (KM-Log)		2.739
100					KM Standard Error of Mean (logged)	0.0896						
101												
102	**DL/2 Statistics**											
103	**DL/2 Normal**									**DL/2 Log-Transformed**		
104					Mean in Original Scale	0.1				Mean in Log Scale		-3.915
105					SD in Original Scale	0.32				SD in Log Scale		1.686
106					95% t UCL (Assumes normality)	0.127				95% H-Stat UCL		0.105
107	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
108												

	A	B	C	D	E	F	G	H	I	J	K	L
109	**Nonparametric Distribution Free UCL Statistics**											
110	**Data do not follow a Discernible Distribution**											
111												
112	**Suggested UCL to Use**											
113	95% KM (t) UCL					0.127						
114												
115	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
116	**Please verify the data were collected from random locations.**											
117	**If the data were collected using judgmental or other non-random methods,**											
118	**then contact a statistician to correctly calculate UCLs.**											
119												
120	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
121	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
122	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
123												
239	**Accessible_PFOS+PFHxS_On-base Other**											
240												
241	**General Statistics**											
242	Total Number of Observations					107			Number of Distinct Observations			62
243	Number of Detects					73			Number of Non-Detects			34
244	Number of Distinct Detects					61			Number of Distinct Non-Detects			1
245	Minimum Detect					0.0014			Minimum Non-Detect			0.005
246	Maximum Detect					1.7			Maximum Non-Detect			0.005
247	Variance Detects					0.0518			Percent Non-Detects			31.78%
248	Mean Detects					0.0758			SD Detects			0.228
249	Median Detects					0.016			CV Detects			3.004
250	Skewness Detects					5.828			Kurtosis Detects			38.03
251	Mean of Logged Detects					-3.845			SD of Logged Detects			1.339
252												
253	**Normal GOF Test on Detects Only**											
254	Shapiro Wilk Test Statistic					0.337			**Normal GOF Test on Detected Observations Only**			
255	1% Shapiro Wilk P Value					0			Detected Data Not Normal at 1% Significance Level			
256	Lilliefors Test Statistic					0.372			**Lilliefors GOF Test**			
257	1% Lilliefors Critical Value					0.12			Detected Data Not Normal at 1% Significance Level			
258	**Detected Data Not Normal at 1% Significance Level**											
259												
260	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
261	KM Mean					0.0527			KM Standard Error of Mean			0.0185
262	90KM SD					0.19			95% KM (BCA) UCL			0.0865
263	95% KM (t) UCL					0.0833			95% KM (Percentile Bootstrap) UCL			0.0854
264	95% KM (z) UCL					0.083			95% KM Bootstrap t UCL			0.128
265	90% KM Chebyshev UCL					0.108			95% KM Chebyshev UCL			0.133
266	97.5% KM Chebyshev UCL					0.168			99% KM Chebyshev UCL			0.236
267												
268	**Gamma GOF Tests on Detected Observations Only**											
269	A-D Test Statistic					6.494			**Anderson-Darling GOF Test**			
270	5% A-D Critical Value					0.817			Detected Data Not Gamma Distributed at 5% Significance Level			
271	K-S Test Statistic					0.222			**Kolmogorov-Smirnov GOF**			
272	5% K-S Critical Value					0.11			Detected Data Not Gamma Distributed at 5% Significance Level			
273	**Detected Data Not Gamma Distributed at 5% Significance Level**											
274												
275	**Gamma Statistics on Detected Data Only**											
276	k hat (MLE)					0.502			k star (bias corrected MLE)			0.491
277	Theta hat (MLE)					0.151			Theta star (bias corrected MLE)			0.154

278					nu hat (MLE)	73.31				nu star (bias corrected)		71.63
279					Mean (detects)	0.0758						
280												
281					**Gamma ROS Statistics using Imputed Non-Detects**							
282					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
283					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
284					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
285					This is especially true when the sample size is small.							
286					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
287					Minimum	0.0014				Mean		0.0549
288					Maximum	1.7				Median		0.01
289					SD	0.19				CV		3.465
290					k hat (MLE)	0.532				k star (bias corrected MLE)		0.523
291					Theta hat (MLE)	0.103				Theta star (bias corrected MLE)		0.105
292					nu hat (MLE)	113.8				nu star (bias corrected)		111.9
293					Adjusted Level of Significance (β)	0.0478						
294					Approximate Chi Square Value (111.94, α)	88.51				Adjusted Chi Square Value (111.94, β)		88.23
295					95% Gamma Approximate UCL	0.0694				95% Gamma Adjusted UCL		0.0696
296												
297					**Estimates of Gamma Parameters using KM Estimates**							
298					Mean (KM)	0.0527				SD (KM)		0.19
299					Variance (KM)	0.036				SE of Mean (KM)		0.0185
300					k hat (KM)	0.077				k star (KM)		0.0811
301					nu hat (KM)	16.48				nu star (KM)		17.36
302					theta hat (KM)	0.684				theta star (KM)		0.649
303					80% gamma percentile (KM)	0.0257				90% gamma percentile (KM)		0.126
304					95% gamma percentile (KM)	0.306				99% gamma percentile (KM)		0.927
305												
306					**Gamma Kaplan-Meier (KM) Statistics**							
307					Approximate Chi Square Value (17.36, α)	8.927				Adjusted Chi Square Value (17.36, β)		8.844
308					95% KM Approximate Gamma UCL	0.102				95% KM Adjusted Gamma UCL		0.103
309												
310					**Lognormal GOF Test on Detected Observations Only**							
311					Shapiro Wilk Approximate Test Statistic	0.945				**Shapiro Wilk GOF Test**		
312					10% Shapiro Wilk P Value	0.00672				Detected Data Not Lognormal at 10% Significance Level		
313					Lilliefors Test Statistic	0.124				**Lilliefors GOF Test**		
314					10% Lilliefors Critical Value	0.0949				Detected Data Not Lognormal at 10% Significance Level		
315					**Detected Data Not Lognormal at 10% Significance Level**							
316												
317					**Lognormal ROS Statistics Using Imputed Non-Detects**							
318					Mean in Original Scale	0.0524				Mean in Log Scale		-4.652
319					SD in Original Scale	0.191				SD in Log Scale		1.693
320					95% t UCL (assumes normality of ROS data)	0.083				95% Percentile Bootstrap UCL		0.0865
321					95% BCA Bootstrap UCL	0.103				95% Bootstrap t UCL		0.124
322					95% H-UCL (Log ROS)	0.065						
323												
324					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
325					KM Mean (logged)	-4.477				KM Geo Mean		0.0114
326					KM SD (logged)	1.449				95% Critical H Value (KM-Log)		2.666
327					KM Standard Error of Mean (logged)	0.149				95% H-UCL (KM -Log)		0.0473
328					KM SD (logged)	1.449				95% Critical H Value (KM-Log)		2.666
329					KM Standard Error of Mean (logged)	0.149						
330					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
331												

332	**DL/2 Statistics**											
333	**DL/2 Normal**						**DL/2 Log-Transformed**					
334					Mean in Original Scale	0.0525				Mean in Log Scale	-4.527	
335					SD in Original Scale	0.191				SD in Log Scale	1.492	
336					95% t UCL (Assumes normality)	0.0831				95% H-Stat UCL	0.0488	
337	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
338												
339	**Nonparametric Distribution Free UCL Statistics**											
340	**Data do not follow a Discernible Distribution**											
341												
342	**Suggested UCL to Use**											
343					95% KM (t) UCL	0.0833						
344												
345	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
346	**Please verify the data were collected from random locations.**											
347	**If the data were collected using judgmental or other non-random methods,**											
348	**then contact a statistician to correctly calculate UCLs.**											
349												
350	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
351	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
352	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
353												
354	**Accessible_PFOS+PFHxS_SA01**											
355												
356	**General Statistics**											
357					Total Number of Observations	77				Number of Distinct Observations	63	
358					Number of Detects	74				Number of Non-Detects	3	
359					Number of Distinct Detects	62				Number of Distinct Non-Detects	1	
360					Minimum Detect	0.0054				Minimum Non-Detect	0.005	
361					Maximum Detect	1.2				Maximum Non-Detect	0.005	
362					Variance Detects	0.0304				Percent Non-Detects	3.896%	
363					Mean Detects	0.0903				SD Detects	0.174	
364					Median Detects	0.0305				CV Detects	1.93	
365					Skewness Detects	4.36				Kurtosis Detects	23.33	
366					Mean of Logged Detects	-3.29				SD of Logged Detects	1.241	
367												
368	**Normal GOF Test on Detects Only**											
369					Shapiro Wilk Test Statistic	0.506	**Normal GOF Test on Detected Observations Only**					
370					1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level					
371					Lilliefors Test Statistic	0.314	**Lilliefors GOF Test**					
372					1% Lilliefors Critical Value	0.119	Detected Data Not Normal at 1% Significance Level					
373	**Detected Data Not Normal at 1% Significance Level**											
374												
375	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
376					KM Mean	0.087				KM Standard Error of Mean	0.0196	
377					90KM SD	0.171				95% KM (BCA) UCL	0.123	
378					95% KM (t) UCL	0.12				95% KM (Percentile Bootstrap) UCL	0.12	
379					95% KM (z) UCL	0.119				95% KM Bootstrap t UCL	0.14	
380					90% KM Chebyshev UCL	0.146				95% KM Chebyshev UCL	0.172	
381					97.5% KM Chebyshev UCL	0.209				99% KM Chebyshev UCL	0.282	
382												
383	**Gamma GOF Tests on Detected Observations Only**											
384					A-D Test Statistic	3.507	**Anderson-Darling GOF Test**					
385					5% A-D Critical Value	0.799	Detected Data Not Gamma Distributed at 5% Significance Level					

386	K-S Test Statistic					0.169	**Kolmogorov-Smirnov GOF**					
387	5% K-S Critical Value					0.108	Detected Data Not Gamma Distributed at 5% Significance Level					
388	**Detected Data Not Gamma Distributed at 5% Significance Level**											
389												
390	**Gamma Statistics on Detected Data Only**											
391	k hat (MLE)					0.684	k star (bias corrected MLE)					0.666
392	Theta hat (MLE)					0.132	Theta star (bias corrected MLE)					0.136
393	nu hat (MLE)					101.3	nu star (bias corrected)					98.52
394	Mean (detects)					0.0903						
395												
396	**Gamma ROS Statistics using Imputed Non-Detects**											
397	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
398	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
399	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
400	This is especially true when the sample size is small.											
401	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
402	Minimum					0.0054	Mean					0.0872
403	Maximum					1.2	Median					0.03
404	SD					0.172	CV					1.967
405	k hat (MLE)					0.674	k star (bias corrected MLE)					0.656
406	Theta hat (MLE)					0.129	Theta star (bias corrected MLE)					0.133
407	nu hat (MLE)					103.8	nu star (bias corrected)					101.1
408	Adjusted Level of Significance (β)					0.0469						
409	Approximate Chi Square Value (101.05, α)					78.86	Adjusted Chi Square Value (101.05, β)					78.49
410	95% Gamma Approximate UCL					0.112	95% Gamma Adjusted UCL					0.112
411												
412	**Estimates of Gamma Parameters using KM Estimates**											
413	Mean (KM)					0.087	SD (KM)					0.171
414	Variance (KM)					0.0291	SE of Mean (KM)					0.0196
415	k hat (KM)					0.26	k star (KM)					0.259
416	nu hat (KM)					40.09	nu star (KM)					39.86
417	theta hat (KM)					0.334	theta star (KM)					0.336
418	80% gamma percentile (KM)					0.128	90% gamma percentile (KM)					0.26
419	95% gamma percentile (KM)					0.417	99% gamma percentile (KM)					0.831
420												
421	**Gamma Kaplan-Meier (KM) Statistics**											
422	Approximate Chi Square Value (39.86, α)					26.4	Adjusted Chi Square Value (39.86, β)					26.19
423	95% KM Approximate Gamma UCL					0.131	95% KM Adjusted Gamma UCL					0.132
424												
425	**Lognormal GOF Test on Detected Observations Only**											
426	Shapiro Wilk Approximate Test Statistic					0.951	**Shapiro Wilk GOF Test**					
427	10% Shapiro Wilk P Value					0.0169	Detected Data Not Lognormal at 10% Significance Level					
428	Lilliefors Test Statistic					0.0799	**Lilliefors GOF Test**					
429	10% Lilliefors Critical Value					0.0943	Detected Data appear Lognormal at 10% Significance Level					
430	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
431												
432	**Lognormal ROS Statistics Using Imputed Non-Detects**											
433	Mean in Original Scale					0.0869	Mean in Log Scale					-3.408
434	SD in Original Scale					0.172	SD in Log Scale					1.352
435	95% t UCL (assumes normality of ROS data)					0.119	95% Percentile Bootstrap UCL					0.121
436	95% BCA Bootstrap UCL					0.128	95% Bootstrap t UCL					0.14
437	95% H-UCL (Log ROS)					0.124						
438												
439	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											

440	KM Mean (logged)					-3.368	KM Geo Mean					0.0345
441	KM SD (logged)					1.269	95% Critical H Value (KM-Log)					2.542
442	KM Standard Error of Mean (logged)					0.146	95% H-UCL (KM -Log)					0.112
443	KM SD (logged)					1.269	95% Critical H Value (KM-Log)					2.542
444	KM Standard Error of Mean (logged)					0.146						
445												
446	**DL/2 Statistics**											
447	**DL/2 Normal**						**DL/2 Log-Transformed**					
448	Mean in Original Scale					0.0869	Mean in Log Scale					-3.395
449	SD in Original Scale					0.172	SD in Log Scale					1.325
450	95% t UCL (Assumes normality)					0.12	95% H-Stat UCL					0.12
451	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
452												
453	**Nonparametric Distribution Free UCL Statistics**											
454	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
455												
456	**Suggested UCL to Use**											
457	KM H-UCL					0.112						
458												
459	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
460	**Please verify the data were collected from random locations.**											
461	**If the data were collected using judgmental or other non-random methods,**											
462	**then contact a statistician to correctly calculate UCLs.**											
463												
464	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
465	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
466	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
467												
468	**Accessible_PFOS+PFHxS_SA02**											
469												
470	**General Statistics**											
471	Total Number of Observations					64	Number of Distinct Observations					55
472	Number of Detects					55	Number of Non-Detects					9
473	Number of Distinct Detects					54	Number of Distinct Non-Detects					1
474	Minimum Detect					0.0058	Minimum Non-Detect					0.005
475	Maximum Detect					4.268	Maximum Non-Detect					0.005
476	Variance Detects					0.511	Percent Non-Detects					14.06%
477	Mean Detects					0.356	SD Detects					0.715
478	Median Detects					0.0845	CV Detects					2.01
479	Skewness Detects					3.978	Kurtosis Detects					18.38
480	Mean of Logged Detects					-2.288	SD of Logged Detects					1.642
481												
482	**Normal GOF Test on Detects Only**											
483	Shapiro Wilk Test Statistic					0.518	**Normal GOF Test on Detected Observations Only**					
484	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
485	Lilliefors Test Statistic					0.312	**Lilliefors GOF Test**					
486	1% Lilliefors Critical Value					0.138	Detected Data Not Normal at 1% Significance Level					
487	**Detected Data Not Normal at 1% Significance Level**											
488												
489	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
490	KM Mean					0.306	KM Standard Error of Mean					0.0843
491	90KM SD					0.668	95% KM (BCA) UCL					0.442
492	95% KM (t) UCL					0.447	95% KM (Percentile Bootstrap) UCL					0.447
493	95% KM (z) UCL					0.445	95% KM Bootstrap t UCL					0.565

	A	B	C	D	E	F	G	H	I	J	K	L
494				90% KM Chebyshev UCL		0.559				95% KM Chebyshev UCL		0.674
495				97.5% KM Chebyshev UCL		0.832				99% KM Chebyshev UCL		1.145
496												
497	**Gamma GOF Tests on Detected Observations Only**											
498				A-D Test Statistic		1.851	**Anderson-Darling GOF Test**					
499				5% A-D Critical Value		0.815	Detected Data Not Gamma Distributed at 5% Significance Level					
500				K-S Test Statistic		0.187	**Kolmogorov-Smirnov GOF**					
501				5% K-S Critical Value		0.127	Detected Data Not Gamma Distributed at 5% Significance Level					
502	**Detected Data Not Gamma Distributed at 5% Significance Level**											
503												
504	**Gamma Statistics on Detected Data Only**											
505				k hat (MLE)		0.506	k star (bias corrected MLE)					0.49
506				Theta hat (MLE)		0.703	Theta star (bias corrected MLE)					0.725
507				nu hat (MLE)		55.64	nu star (bias corrected)					53.93
508				Mean (detects)		0.356						
509												
510	**Gamma ROS Statistics using Imputed Non-Detects**											
511	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
512	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
513	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
514	This is especially true when the sample size is small.											
515	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
516				Minimum		0.0058	Mean					0.307
517				Maximum		4.268	Median					0.0602
518				SD		0.673	CV					2.192
519				k hat (MLE)		0.451	k star (bias corrected MLE)					0.44
520				Theta hat (MLE)		0.681	Theta star (bias corrected MLE)					0.698
521				nu hat (MLE)		57.69	nu star (bias corrected)					56.31
522				Adjusted Level of Significance (β)		0.0463						
523				Approximate Chi Square Value (56.31, α)		40.07	Adjusted Chi Square Value (56.31, β)					39.75
524				95% Gamma Approximate UCL		0.431	95% Gamma Adjusted UCL					0.435
525												
526	**Estimates of Gamma Parameters using KM Estimates**											
527				Mean (KM)		0.306	SD (KM)					0.668
528				Variance (KM)		0.446	SE of Mean (KM)					0.0843
529				k hat (KM)		0.21	k star (KM)					0.211
530				nu hat (KM)		26.92	nu star (KM)					26.99
531				theta hat (KM)		1.456	theta star (KM)					1.453
532				80% gamma percentile (KM)		0.414	90% gamma percentile (KM)					0.926
533				95% gamma percentile (KM)		1.556	99% gamma percentile (KM)					3.276
534												
535	**Gamma Kaplan-Meier (KM) Statistics**											
536				Approximate Chi Square Value (26.99, α)		16.15	Adjusted Chi Square Value (26.99, β)					15.95
537				95% KM Approximate Gamma UCL		0.512	95% KM Adjusted Gamma UCL					0.518
538												
539	**Lognormal GOF Test on Detected Observations Only**											
540				Shapiro Wilk Approximate Test Statistic		0.964	**Shapiro Wilk GOF Test**					
541				10% Shapiro Wilk P Value		0.199	Detected Data appear Lognormal at 10% Significance Level					
542				Lilliefors Test Statistic		0.0778	**Lilliefors GOF Test**					
543				10% Lilliefors Critical Value		0.109	Detected Data appear Lognormal at 10% Significance Level					
544	**Detected Data appear Lognormal at 10% Significance Level**											
545												
546	**Lognormal ROS Statistics Using Imputed Non-Detects**											
547				Mean in Original Scale		0.306	Mean in Log Scale					-2.818

548					SD in Original Scale	0.673					SD in Log Scale	2.031
549				95% t UCL (assumes normality of ROS data)		0.447					95% Percentile Bootstrap UCL	0.446
550					95% BCA Bootstrap UCL	0.485					95% Bootstrap t UCL	0.56
551					95% H-UCL (Log ROS)	1.034						
552												
553	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
554					KM Mean (logged)	-2.711					KM Geo Mean	0.0665
555					KM SD (logged)	1.836					95% Critical H Value (KM-Log)	2.852
556				KM Standard Error of Mean (logged)		0.232					95% H-UCL (KM -Log)	0.693
557					KM SD (logged)	1.836					95% Critical H Value (KM-Log)	2.852
558				KM Standard Error of Mean (logged)		0.232						
559												
560	**DL/2 Statistics**											
561	**DL/2 Normal**						**DL/2 Log-Transformed**					
562					Mean in Original Scale	0.306					Mean in Log Scale	-2.808
563					SD in Original Scale	0.673					SD in Log Scale	1.999
564				95% t UCL (Assumes normality)		0.446					95% H-Stat UCL	0.959
565	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
566												
567	**Nonparametric Distribution Free UCL Statistics**											
568	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
569												
570	**Suggested UCL to Use**											
571					KM H-UCL	0.693						
572												
573	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
574	**Please verify the data were collected from random locations.**											
575	**If the data were collected using judgmental or other non-random methods,**											
576	**then contact a statistician to correctly calculate UCLs.**											
577												
578	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
579	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
580	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
581												
582	**Accessible_PFOS+PFHxS_SA03**											
583												
584	**General Statistics**											
585					Total Number of Observations	20					Number of Distinct Observations	3
586					Number of Detects	2					Number of Non-Detects	18
587					Number of Distinct Detects	2					Number of Distinct Non-Detects	1
588					Minimum Detect	0.0095					Minimum Non-Detect	0.005
589					Maximum Detect	0.01					Maximum Non-Detect	0.005
590					Variance Detects	1.2500E-7					Percent Non-Detects	90%
591					Mean Detects	0.00975					SD Detects	3.5355E-4
592					Median Detects	0.00975					CV Detects	0.0363
593					Skewness Detects	N/A					Kurtosis Detects	N/A
594					Mean of Logged Detects	-4.631					SD of Logged Detects	0.0363
595												
596	**Warning: Data set has only 2 Detected Values.**											
597	**This is not enough to compute meaningful or reliable statistics and estimates.**											
598												
599												
600	**Normal GOF Test on Detects Only**											
601	**Not Enough Data to Perform GOF Test**											

602												
603	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
604					KM Mean	0.00548			KM Standard Error of Mean	4.5132E-4		
605					90KM SD	0.00143			95% KM (BCA) UCL	N/A		
606					95% KM (t) UCL	0.00626			95% KM (Percentile Bootstrap) UCL	N/A		
607					95% KM (z) UCL	0.00622			95% KM Bootstrap t UCL	N/A		
608					90% KM Chebyshev UCL	0.00683			95% KM Chebyshev UCL	0.00744		
609					97.5% KM Chebyshev UCL	0.00829			99% KM Chebyshev UCL	0.00997		
610												
611	**Gamma GOF Tests on Detected Observations Only**											
612	**Not Enough Data to Perform GOF Test**											
613												
614	**Gamma Statistics on Detected Data Only**											
615					k hat (MLE)	1521			k star (bias corrected MLE)	N/A		
616					Theta hat (MLE)	6.4117E-6			Theta star (bias corrected MLE)	N/A		
617					nu hat (MLE)	6083			nu star (bias corrected)	N/A		
618					Mean (detects)	0.00975						
619												
620	**Estimates of Gamma Parameters using KM Estimates**											
621					Mean (KM)	0.00548			SD (KM)	0.00143		
622					Variance (KM)	2.0369E-6			SE of Mean (KM)	4.5132E-4		
623					k hat (KM)	14.72			k star (KM)	12.54		
624					nu hat (KM)	588.7			nu star (KM)	501.7		
625					theta hat (KM)	3.7203E-4			theta star (KM)	4.3652E-4		
626					80% gamma percentile (KM)	0.00672			90% gamma percentile (KM)	0.00753		
627					95% gamma percentile (KM)	0.00824			99% gamma percentile (KM)	0.0097		
628												
629	**Gamma Kaplan-Meier (KM) Statistics**											
630									Adjusted Level of Significance (β)	0.038		
631					Approximate Chi Square Value (501.69, α)	450.8			Adjusted Chi Square Value (501.69, β)	446.9		
632					95% KM Approximate Gamma UCL	0.00609			95% KM Adjusted Gamma UCL	0.00615		
633												
634	**Lognormal GOF Test on Detected Observations Only**											
635	**Not Enough Data to Perform GOF Test**											
636												
637	**Lognormal ROS Statistics Using Imputed Non-Detects**											
638					Mean in Original Scale	0.00762			Mean in Log Scale	-4.886		
639					SD in Original Scale	0.00109			SD in Log Scale	0.142		
640					95% t UCL (assumes normality of ROS data)	0.00805			95% Percentile Bootstrap UCL	0.00803		
641					95% BCA Bootstrap UCL	0.00804			95% Bootstrap t UCL	0.00806		
642					95% H-UCL (Log ROS)	0.00808						
643												
644	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
645					KM Mean (logged)	-5.232			KM Geo Mean	0.00535		
646					KM SD (logged)	0.2			95% Critical H Value (KM-Log)	1.786		
647					KM Standard Error of Mean (logged)	0.0634			95% H-UCL (KM -Log)	0.00592		
648					KM SD (logged)	0.2			95% Critical H Value (KM-Log)	1.786		
649					KM Standard Error of Mean (logged)	0.0634						
650												
651	**DL/2 Statistics**											
652	**DL/2 Normal**								**DL/2 Log-Transformed**			
653					Mean in Original Scale	0.00323			Mean in Log Scale	-5.855		
654					SD in Original Scale	0.00223			SD in Log Scale	0.419		
655					95% t UCL (Assumes normality)	0.00409			95% H-Stat UCL	0.00377		

656	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
657												
658	**Nonparametric Distribution Free UCL Statistics**											
659	**Data do not follow a Discernible Distribution**											
660												
661	**Suggested UCL to Use**											
662	95% KM (t) UCL				0.00626							
663												
664	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
665	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
666	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
667												
668												
669	**Accessible_PFOS+PFHxS_SA04**											
670												
671	**General Statistics**											
672	Total Number of Observations				16			Number of Distinct Observations				16
673								Number of Missing Observations				0
674	Minimum				0.131			Mean				60.52
675	Maximum				206.7			Median				46.05
676	SD				63.06			Std. Error of Mean				15.77
677	Coefficient of Variation				1.042			Skewness				1.254
678												
679	**Normal GOF Test**											
680	Shapiro Wilk Test Statistic				0.847			**Shapiro Wilk GOF Test**				
681	1% Shapiro Wilk Critical Value				0.844			Data appear Normal at 1% Significance Level				
682	Lilliefors Test Statistic				0.169			**Lilliefors GOF Test**				
683	1% Lilliefors Critical Value				0.248			Data appear Normal at 1% Significance Level				
684	**Data appear Normal at 1% Significance Level**											
685												
686	**Assuming Normal Distribution**											
687	**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**				
688	95% Student's-t UCL				88.15			95% Adjusted-CLT UCL (Chen-1995)				91.73
689								95% Modified-t UCL (Johnson-1978)				88.98
690												
691	**Gamma GOF Test**											
692	A-D Test Statistic				0.587			**Anderson-Darling Gamma GOF Test**				
693	5% A-D Critical Value				0.793			Detected data appear Gamma Distributed at 5% Significance Level				
694	K-S Test Statistic				0.191			**Kolmogorov-Smirnov Gamma GOF Test**				
695	5% K-S Critical Value				0.227			Detected data appear Gamma Distributed at 5% Significance Level				
696	**Detected data appear Gamma Distributed at 5% Significance Level**											
697												
698	**Gamma Statistics**											
699	k hat (MLE)				0.542			k star (bias corrected MLE)				0.482
700	Theta hat (MLE)				111.7			Theta star (bias corrected MLE)				125.6
701	nu hat (MLE)				17.33			nu star (bias corrected)				15.42
702	MLE Mean (bias corrected)				60.52			MLE Sd (bias corrected)				87.19
703								Approximate Chi Square Value (0.05)				7.553
704	Adjusted Level of Significance				0.0335			Adjusted Chi Square Value				6.934
705												
706	**Assuming Gamma Distribution**											
707	95% Approximate Gamma UCL				123.5			95% Adjusted Gamma UCL				134.6
708												
709	**Lognormal GOF Test**											

710				Shapiro Wilk Test Statistic		0.854	**Shapiro Wilk Lognormal GOF Test**					
711				10% Shapiro Wilk Critical Value		0.906	Data Not Lognormal at 10% Significance Level					
712				Lilliefors Test Statistic		0.268	**Lilliefors Lognormal GOF Test**					
713				10% Lilliefors Critical Value		0.196	Data Not Lognormal at 10% Significance Level					
714	**Data Not Lognormal at 10% Significance Level**											
715												
716	**Lognormal Statistics**											
717				Minimum of Logged Data		-2.033	Mean of logged Data					2.945
718				Maximum of Logged Data		5.331	SD of logged Data					2.224
719												
720	**Assuming Lognormal Distribution**											
721				95% H-UCL		3757	90% Chebyshev (MVUE) UCL					445.1
722				95% Chebyshev (MVUE) UCL		578.1	97.5% Chebyshev (MVUE) UCL					762.8
723				99% Chebyshev (MVUE) UCL		1125						
724												
725	**Nonparametric Distribution Free UCL Statistics**											
726	**Data appear to follow a Discernible Distribution**											
727												
728	**Nonparametric Distribution Free UCLs**											
729				95% CLT UCL		86.45	95% BCA Bootstrap UCL					92.22
730				95% Standard Bootstrap UCL		85	95% Bootstrap-t UCL					98.24
731				95% Hall's Bootstrap UCL		111.7	95% Percentile Bootstrap UCL					85.53
732				90% Chebyshev(Mean, Sd) UCL		107.8	95% Chebyshev(Mean, Sd) UCL					129.2
733				97.5% Chebyshev(Mean, Sd) UCL		159	99% Chebyshev(Mean, Sd) UCL					217.4
734												
735	**Suggested UCL to Use**											
736				95% Student's-t UCL		88.15						
737												
738	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
739	**Please verify the data were collected from random locations.**											
740	**If the data were collected using judgmental or other non-random methods,**											
741	**then contact a statistician to correctly calculate UCLs.**											
742												
743	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
744	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
745	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
746												
747												
748	**Accessible_PFOS+PFHxS_SA05**											
749												
750	**General Statistics**											
751				Total Number of Observations		33	Number of Distinct Observations					31
752							Number of Missing Observations					0
753				Minimum		0.0093	Mean					0.808
754				Maximum		17.34	Median					0.144
755				SD		2.991	Std. Error of Mean					0.521
756				Coefficient of Variation		3.702	Skewness					5.605
757												
758	**Normal GOF Test**											
759				Shapiro Wilk Test Statistic		0.26	**Shapiro Wilk GOF Test**					
760				1% Shapiro Wilk Critical Value		0.906	Data Not Normal at 1% Significance Level					
761				Lilliefors Test Statistic		0.402	**Lilliefors GOF Test**					
762				1% Lilliefors Critical Value		0.177	Data Not Normal at 1% Significance Level					
763	**Data Not Normal at 1% Significance Level**											

764												
765	**Assuming Normal Distribution**											
766	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
767				95% Student's-t UCL		1.69				95% Adjusted-CLT UCL (Chen-1995)		2.207
768										95% Modified-t UCL (Johnson-1978)		1.775
769												
770	**Gamma GOF Test**											
771				A-D Test Statistic		2.998	**Anderson-Darling Gamma GOF Test**					
772				5% A-D Critical Value		0.833	Data Not Gamma Distributed at 5% Significance Level					
773				K-S Test Statistic		0.229	**Kolmogorov-Smirnov Gamma GOF Test**					
774				5% K-S Critical Value		0.164	Data Not Gamma Distributed at 5% Significance Level					
775	**Data Not Gamma Distributed at 5% Significance Level**											
776												
777	**Gamma Statistics**											
778				k hat (MLE)		0.402				k star (bias corrected MLE)		0.386
779				Theta hat (MLE)		2.01				Theta star (bias corrected MLE)		2.095
780				nu hat (MLE)		26.53				nu star (bias corrected)		25.45
781				MLE Mean (bias corrected)		0.808				MLE Sd (bias corrected)		1.301
782										Approximate Chi Square Value (0.05)		14.96
783				Adjusted Level of Significance		0.0419				Adjusted Chi Square Value		14.54
784												
785	**Assuming Gamma Distribution**											
786				95% Approximate Gamma UCL		1.375				95% Adjusted Gamma UCL		1.414
787												
788	**Lognormal GOF Test**											
789				Shapiro Wilk Test Statistic		0.965	**Shapiro Wilk Lognormal GOF Test**					
790				10% Shapiro Wilk Critical Value		0.942	Data appear Lognormal at 10% Significance Level					
791				Lilliefors Test Statistic		0.109	**Lilliefors Lognormal GOF Test**					
792				10% Lilliefors Critical Value		0.139	Data appear Lognormal at 10% Significance Level					
793	**Data appear Lognormal at 10% Significance Level**											
794												
795	**Lognormal Statistics**											
796				Minimum of Logged Data		-4.678				Mean of logged Data		-1.849
797				Maximum of Logged Data		2.853				SD of logged Data		1.559
798												
799	**Assuming Lognormal Distribution**											
800				95% H-UCL		1.277				90% Chebyshev (MVUE) UCL		1.009
801				95% Chebyshev (MVUE) UCL		1.243				97.5% Chebyshev (MVUE) UCL		1.568
802				99% Chebyshev (MVUE) UCL		2.205						
803												
804	**Nonparametric Distribution Free UCL Statistics**											
805	**Data appear to follow a Discernible Distribution**											
806												
807	**Nonparametric Distribution Free UCLs**											
808				95% CLT UCL		1.665				95% BCA Bootstrap UCL		2.494
809				95% Standard Bootstrap UCL		1.651				95% Bootstrap-t UCL		6.971
810				95% Hall's Bootstrap UCL		4.788				95% Percentile Bootstrap UCL		1.829
811				90% Chebyshev(Mean, Sd) UCL		2.37				95% Chebyshev(Mean, Sd) UCL		3.078
812				97.5% Chebyshev(Mean, Sd) UCL		4.06				99% Chebyshev(Mean, Sd) UCL		5.989
813												
814	**Suggested UCL to Use**											
815				95% H-UCL		1.277						
816												
817	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											

818	**Please verify the data were collected from random locations.**											
819	**If the data were collected using judgmental or other non-random methods,**											
820	**then contact a statistician to correctly calculate UCLs.**											
821												
822	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
823	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
824	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
825												
826	**Accessible_PFOS+PFHxS_SA06**											
827												
828	**General Statistics**											
829						Total Number of Observations	8			Number of Distinct Observations	7	
830						Number of Detects	6			Number of Non-Detects	2	
831						Number of Distinct Detects	6			Number of Distinct Non-Detects	1	
832						Minimum Detect	0.011			Minimum Non-Detect	0.005	
833						Maximum Detect	24			Maximum Non-Detect	0.005	
834						Variance Detects	94.29			Percent Non-Detects	25%	
835						Mean Detects	5.47			SD Detects	9.711	
836						Median Detects	0.0665			CV Detects	1.775	
837						Skewness Detects	1.885			Kurtosis Detects	3.313	
838						Mean of Logged Detects	-1.497			SD of Logged Detects	3.327	
839												
840	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
841	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
842	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
843	**The Chebyshev UCL often results in gross overestimates of the mean.**											
844	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
845												
846	**Normal GOF Test on Detects Only**											
847						Shapiro Wilk Test Statistic	0.676			**Shapiro Wilk GOF Test**		
848						1% Shapiro Wilk Critical Value	0.713			Detected Data Not Normal at 1% Significance Level		
849						Lilliefors Test Statistic	0.377			**Lilliefors GOF Test**		
850						1% Lilliefors Critical Value	0.373			Detected Data Not Normal at 1% Significance Level		
851	**Detected Data Not Normal at 1% Significance Level**											
852												
853	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
854						KM Mean	4.104			KM Standard Error of Mean	3.111	
855						90KM SD	8.033			95% KM (BCA) UCL	9.028	
856						95% KM (t) UCL	9.998			95% KM (Percentile Bootstrap) UCL	9.035	
857						95% KM (z) UCL	9.221			95% KM Bootstrap t UCL	1011	
858						90% KM Chebyshev UCL	13.44			95% KM Chebyshev UCL	17.67	
859						97.5% KM Chebyshev UCL	23.53			99% KM Chebyshev UCL	35.06	
860												
861	**Gamma GOF Tests on Detected Observations Only**											
862						A-D Test Statistic	0.689			**Anderson-Darling GOF Test**		
863						5% A-D Critical Value	0.793			Detected data appear Gamma Distributed at 5% Significance Level		
864						K-S Test Statistic	0.349			**Kolmogorov-Smirnov GOF**		
865						5% K-S Critical Value	0.362			Detected data appear Gamma Distributed at 5% Significance Level		
866	**Detected data appear Gamma Distributed at 5% Significance Level**											
867	**Note GOF tests may be unreliable for small sample sizes**											
868												
869	**Gamma Statistics on Detected Data Only**											
870						k hat (MLE)	0.226			k star (bias corrected MLE)	0.224	
871						Theta hat (MLE)	24.22			Theta star (bias corrected MLE)	24.42	

	A	B	C	D	E	F	G	H	I	J	K	L
872					nu hat (MLE)	2.71				nu star (bias corrected)		2.689
873					Mean (detects)	5.47						
874												
875	**Gamma ROS Statistics using Imputed Non-Detects**											
876	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
877	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
878	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
879	This is especially true when the sample size is small.											
880	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
881					Minimum	0.01				Mean		4.105
882					Maximum	24				Median		0.0245
883					SD	8.587				CV		2.092
884					k hat (MLE)	0.2				k star (bias corrected MLE)		0.208
885					Theta hat (MLE)	20.56				Theta star (bias corrected MLE)		19.72
886					nu hat (MLE)	3.195				nu star (bias corrected)		3.33
887					Adjusted Level of Significance (β)	0.0195						
888					Approximate Chi Square Value (3.33, α)	0.477				Adjusted Chi Square Value (3.33, β)		0.278
889					95% Gamma Approximate UCL	28.68				95% Gamma Adjusted UCL		49.14
890												
891	**Estimates of Gamma Parameters using KM Estimates**											
892					Mean (KM)	4.104				SD (KM)		8.033
893					Variance (KM)	64.53				SE of Mean (KM)		3.111
894					k hat (KM)	0.261				k star (KM)		0.246
895					nu hat (KM)	4.176				nu star (KM)		3.943
896					theta hat (KM)	15.73				theta star (KM)		16.65
897					80% gamma percentile (KM)	5.93				90% gamma percentile (KM)		12.33
898					95% gamma percentile (KM)	19.95				99% gamma percentile (KM)		40.27
899												
900	**Gamma Kaplan-Meier (KM) Statistics**											
901					Approximate Chi Square Value (3.94, α)	0.699				Adjusted Chi Square Value (3.94, β)		0.427
902					95% KM Approximate Gamma UCL	23.14				95% KM Adjusted Gamma UCL		37.94
903												
904	**Lognormal GOF Test on Detected Observations Only**											
905					Shapiro Wilk Test Statistic	0.834				**Shapiro Wilk GOF Test**		
906					10% Shapiro Wilk Critical Value	0.826				Detected Data appear Lognormal at 10% Significance Level		
907					Lilliefors Test Statistic	0.261				**Lilliefors GOF Test**		
908					10% Lilliefors Critical Value	0.298				Detected Data appear Lognormal at 10% Significance Level		
909	**Detected Data appear Lognormal at 10% Significance Level**											
910	**Note GOF tests may be unreliable for small sample sizes**											
911												
912	**Lognormal ROS Statistics Using Imputed Non-Detects**											
913					Mean in Original Scale	4.103				Mean in Log Scale		-3.57
914					SD in Original Scale	8.589				SD in Log Scale		4.796
915					95% t UCL (assumes normality of ROS data)	9.856				95% Percentile Bootstrap UCL		9.04
916					95% BCA Bootstrap UCL	12.01				95% Bootstrap t UCL		1041
917					95% H-UCL (Log ROS)	4.539E+14						
918												
919	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
920					KM Mean (logged)	-2.447				KM Geo Mean		0.0865
921					KM SD (logged)	3.103				95% Critical H Value (KM-Log)		9.305
922					KM Standard Error of Mean (logged)	1.202				95% H-UCL (KM -Log)		585524
923					KM SD (logged)	3.103				95% Critical H Value (KM-Log)		9.305
924					KM Standard Error of Mean (logged)	1.202						
925												

926	**DL/2 Statistics**											
927	**DL/2 Normal**						**DL/2 Log-Transformed**					
928					Mean in Original Scale	4.103				Mean in Log Scale	-2.621	
929					SD in Original Scale	8.588				SD in Log Scale	3.498	
930					95% t UCL (Assumes normality)	9.856				95% H-Stat UCL	33271298	
931	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
932												
933	**Nonparametric Distribution Free UCL Statistics**											
934	**Detected Data appear Gamma Distributed at 5% Significance Level**											
935												
936	**Suggested UCL to Use**											
937					95% KM Bootstrap t UCL	1011				95% Hall's Bootstrap	585524	
938												
939	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
940	**Please verify the data were collected from random locations.**											
941	**If the data were collected using judgmental or other non-random methods,**											
942	**then contact a statistician to correctly calculate UCLs.**											
943												
944	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
945	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
946	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
947												
948	**Accessible_PFOS+PFHxS_SA07**											
949												
950	**General Statistics**											
951					Total Number of Observations	47				Number of Distinct Observations	37	
952					Number of Detects	44				Number of Non-Detects	3	
953					Number of Distinct Detects	37				Number of Distinct Non-Detects	1	
954					Minimum Detect	0.005				Minimum Non-Detect	0.005	
955					Maximum Detect	0.456				Maximum Non-Detect	0.005	
956					Variance Detects	0.00731				Percent Non-Detects	6.383%	
957					Mean Detects	0.0465				SD Detects	0.0855	
958					Median Detects	0.0165				CV Detects	1.839	
959					Skewness Detects	3.606				Kurtosis Detects	13.98	
960					Mean of Logged Detects	-3.843				SD of Logged Detects	1.102	
961												
962	**Normal GOF Test on Detects Only**											
963					Shapiro Wilk Test Statistic	0.505	**Shapiro Wilk GOF Test**					
964					1% Shapiro Wilk Critical Value	0.924	Detected Data Not Normal at 1% Significance Level					
965					Lilliefors Test Statistic	0.326	**Lilliefors GOF Test**					
966					1% Lilliefors Critical Value	0.154	Detected Data Not Normal at 1% Significance Level					
967	**Detected Data Not Normal at 1% Significance Level**											
968												
969	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
970					KM Mean	0.0438				KM Standard Error of Mean	0.0122	
971					90KM SD	0.0824				95% KM (BCA) UCL	0.0682	
972					95% KM (t) UCL	0.0642				95% KM (Percentile Bootstrap) UCL	0.0662	
973					95% KM (z) UCL	0.0638				95% KM Bootstrap t UCL	0.089	
974					90% KM Chebyshev UCL	0.0803				95% KM Chebyshev UCL	0.0968	
975					97.5% KM Chebyshev UCL	0.12				99% KM Chebyshev UCL	0.165	
976												
977	**Gamma GOF Tests on Detected Observations Only**											
978					A-D Test Statistic	3.077	**Anderson-Darling GOF Test**					
979					5% A-D Critical Value	0.789	Detected Data Not Gamma Distributed at 5% Significance Level					

980					K-S Test Statistic	0.202	**Kolmogorov-Smirnov GOF**					
981					5% K-S Critical Value	0.139	Detected Data Not Gamma Distributed at 5% Significance Level					
982	**Detected Data Not Gamma Distributed at 5% Significance Level**											
983												
984	**Gamma Statistics on Detected Data Only**											
985					k hat (MLE)	0.77				k star (bias corrected MLE)	0.733	
986					Theta hat (MLE)	0.0603				Theta star (bias corrected MLE)	0.0634	
987					nu hat (MLE)	67.78				nu star (bias corrected)	64.49	
988					Mean (detects)	0.0465						
989												
990	**Gamma ROS Statistics using Imputed Non-Detects**											
991	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
992	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
993	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
994	This is especially true when the sample size is small.											
995	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
996					Minimum	0.005				Mean	0.0441	
997					Maximum	0.456				Median	0.015	
998					SD	0.0831				CV	1.883	
999					k hat (MLE)	0.773				k star (bias corrected MLE)	0.738	
1000					Theta hat (MLE)	0.0571				Theta star (bias corrected MLE)	0.0599	
1001					nu hat (MLE)	72.63				nu star (bias corrected)	69.33	
1002					Adjusted Level of Significance (β)	0.0449						
1003					Approximate Chi Square Value (69.33, α)	51.16				Adjusted Chi Square Value (69.33, β)	50.67	
1004					95% Gamma Approximate UCL	0.0598				95% Gamma Adjusted UCL	0.0604	
1005												
1006	**Estimates of Gamma Parameters using KM Estimates**											
1007					Mean (KM)	0.0438				SD (KM)	0.0824	
1008					Variance (KM)	0.00679				SE of Mean (KM)	0.0122	
1009					k hat (KM)	0.283				k star (KM)	0.279	
1010					nu hat (KM)	26.6				nu star (KM)	26.24	
1011					theta hat (KM)	0.155				theta star (KM)	0.157	
1012					80% gamma percentile (KM)	0.0659				90% gamma percentile (KM)	0.13	
1013					95% gamma percentile (KM)	0.205				99% gamma percentile (KM)	0.401	
1014												
1015	**Gamma Kaplan-Meier (KM) Statistics**											
1016					Approximate Chi Square Value (26.24, α)	15.56				Adjusted Chi Square Value (26.24, β)	15.3	
1017					95% KM Approximate Gamma UCL	0.0739				95% KM Adjusted Gamma UCL	0.0752	
1018												
1019	**Lognormal GOF Test on Detected Observations Only**											
1020					Shapiro Wilk Test Statistic	0.912	**Shapiro Wilk GOF Test**					
1021					10% Shapiro Wilk Critical Value	0.952	Detected Data Not Lognormal at 10% Significance Level					
1022					Lilliefors Test Statistic	0.134	**Lilliefors GOF Test**					
1023					10% Lilliefors Critical Value	0.122	Detected Data Not Lognormal at 10% Significance Level					
1024	**Detected Data Not Lognormal at 10% Significance Level**											
1025												
1026	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1027					Mean in Original Scale	0.0436				Mean in Log Scale	-4.008	
1028					SD in Original Scale	0.0834				SD in Log Scale	1.243	
1029					95% t UCL (assumes normality of ROS data)	0.064				95% Percentile Bootstrap UCL	0.0656	
1030					95% BCA Bootstrap UCL	0.0713				95% Bootstrap t UCL	0.0859	
1031					95% H-UCL (Log ROS)	0.0634						
1032												
1033	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											

1034	KM Mean (logged)					-3.936	KM Geo Mean					0.0195
1035	KM SD (logged)					1.113	95% Critical H Value (KM-Log)					2.454
1036	KM Standard Error of Mean (logged)					0.164	95% H-UCL (KM -Log)					0.0542
1037	KM SD (logged)					1.113	95% Critical H Value (KM-Log)					2.454
1038	KM Standard Error of Mean (logged)					0.164						
1039												
1040	**DL/2 Statistics**											
1041	**DL/2 Normal**						**DL/2 Log-Transformed**					
1042	Mean in Original Scale					0.0437	Mean in Log Scale					-3.98
1043	SD in Original Scale					0.0834	SD in Log Scale					1.191
1044	95% t UCL (Assumes normality)					0.0641	95% H-Stat UCL					0.0593
1045	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1046												
1047	**Nonparametric Distribution Free UCL Statistics**											
1048	**Data do not follow a Discernible Distribution**											
1049												
1050	**Suggested UCL to Use**											
1051	95% KM (t) UCL					0.0642						
1052												
1053	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1054	**Please verify the data were collected from random locations.**											
1055	**If the data were collected using judgmental or other non-random methods,**											
1056	**then contact a statistician to correctly calculate UCLs.**											
1057												
1058	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1059	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1060	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1061												
1062	**Accessible_PFOS+PFHxS_SA08**											
1063												
1064	**General Statistics**											
1065	Total Number of Observations					46	Number of Distinct Observations					39
1066	Number of Detects					42	Number of Non-Detects					4
1067	Number of Distinct Detects					38	Number of Distinct Non-Detects					1
1068	Minimum Detect					0.0056	Minimum Non-Detect					0.005
1069	Maximum Detect					0.899	Maximum Non-Detect					0.005
1070	Variance Detects					0.0273	Percent Non-Detects					8.696%
1071	Mean Detects					0.103	SD Detects					0.165
1072	Median Detects					0.051	CV Detects					1.601
1073	Skewness Detects					3.306	Kurtosis Detects					13.15
1074	Mean of Logged Detects					-3.099	SD of Logged Detects					1.281
1075												
1076	**Normal GOF Test on Detects Only**											
1077	Shapiro Wilk Test Statistic					0.59	**Shapiro Wilk GOF Test**					
1078	1% Shapiro Wilk Critical Value					0.922	Detected Data Not Normal at 1% Significance Level					
1079	Lilliefors Test Statistic					0.277	**Lilliefors GOF Test**					
1080	1% Lilliefors Critical Value					0.157	Detected Data Not Normal at 1% Significance Level					
1081	**Detected Data Not Normal at 1% Significance Level**											
1082												
1083	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1084	KM Mean					0.0946	KM Standard Error of Mean					0.0236
1085	90KM SD					0.158	95% KM (BCA) UCL					0.139
1086	95% KM (t) UCL					0.134	95% KM (Percentile Bootstrap) UCL					0.136
1087	95% KM (z) UCL					0.133	95% KM Bootstrap t UCL					0.162

	A	B	C	D	E	F	G	H	I	J	K	L
1088				90% KM Chebyshev UCL		0.165				95% KM Chebyshev UCL		0.198
1089				97.5% KM Chebyshev UCL		0.242				99% KM Chebyshev UCL		0.33
1090												
1091	**Gamma GOF Tests on Detected Observations Only**											
1092				A-D Test Statistic		1.317	**Anderson-Darling GOF Test**					
1093				5% A-D Critical Value		0.792	Detected Data Not Gamma Distributed at 5% Significance Level					
1094				K-S Test Statistic		0.126	**Kolmogorov-Smirnov GOF**					
1095				5% K-S Critical Value		0.142	Detected data appear Gamma Distributed at 5% Significance Level					
1096	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
1097												
1098	**Gamma Statistics on Detected Data Only**											
1099				k hat (MLE)		0.727	k star (bias corrected MLE)					0.691
1100				Theta hat (MLE)		0.142	Theta star (bias corrected MLE)					0.149
1101				nu hat (MLE)		61.06	nu star (bias corrected)					58.03
1102				Mean (detects)		0.103						
1103												
1104	**Gamma ROS Statistics using Imputed Non-Detects**											
1105	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1106	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1107	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1108	This is especially true when the sample size is small.											
1109	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1110				Minimum		0.0056	Mean					0.095
1111				Maximum		0.899	Median					0.033
1112				SD		0.16	CV					1.682
1113				k hat (MLE)		0.691	k star (bias corrected MLE)					0.66
1114				Theta hat (MLE)		0.138	Theta star (bias corrected MLE)					0.144
1115				nu hat (MLE)		63.56	nu star (bias corrected)					60.75
1116				Adjusted Level of Significance (β)		0.0448						
1117				Approximate Chi Square Value (60.75, α)		43.83	Adjusted Chi Square Value (60.75, β)					43.36
1118				95% Gamma Approximate UCL		0.132	95% Gamma Adjusted UCL					0.133
1119												
1120	**Estimates of Gamma Parameters using KM Estimates**											
1121				Mean (KM)		0.0946	SD (KM)					0.158
1122				Variance (KM)		0.0251	SE of Mean (KM)					0.0236
1123				k hat (KM)		0.357	k star (KM)					0.348
1124				nu hat (KM)		32.83	nu star (KM)					32.03
1125				theta hat (KM)		0.265	theta star (KM)					0.272
1126				80% gamma percentile (KM)		0.15	90% gamma percentile (KM)					0.273
1127				95% gamma percentile (KM)		0.412	99% gamma percentile (KM)					0.766
1128												
1129	**Gamma Kaplan-Meier (KM) Statistics**											
1130				Approximate Chi Square Value (32.03, α)		20.09	Adjusted Chi Square Value (32.03, β)					19.79
1131				95% KM Approximate Gamma UCL		0.151	95% KM Adjusted Gamma UCL					0.153
1132												
1133	**Lognormal GOF Test on Detected Observations Only**											
1134				Shapiro Wilk Test Statistic		0.915	**Shapiro Wilk GOF Test**					
1135				10% Shapiro Wilk Critical Value		0.951	Detected Data Not Lognormal at 10% Significance Level					
1136				Lilliefors Test Statistic		0.0935	**Lilliefors GOF Test**					
1137				10% Lilliefors Critical Value		0.124	Detected Data appear Lognormal at 10% Significance Level					
1138	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
1139												
1140	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1141				Mean in Original Scale		0.0944	Mean in Log Scale					-3.36

1142					SD in Original Scale	0.16					SD in Log Scale	1.497
1143				95% t UCL (assumes normality of ROS data)		0.134					95% Percentile Bootstrap UCL	0.135
1144					95% BCA Bootstrap UCL	0.145					95% Bootstrap t UCL	0.161
1145					95% H-UCL (Log ROS)	0.204						
1146												
1147	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1148					KM Mean (logged)	-3.29					KM Geo Mean	0.0372
1149					KM SD (logged)	1.359					95% Critical H Value (KM-Log)	2.738
1150				KM Standard Error of Mean (logged)		0.203					95% H-UCL (KM -Log)	0.163
1151					KM SD (logged)	1.359					95% Critical H Value (KM-Log)	2.738
1152				KM Standard Error of Mean (logged)		0.203						
1153												
1154	**DL/2 Statistics**											
1155	**DL/2 Normal**						**DL/2 Log-Transformed**					
1156					Mean in Original Scale	0.0944					Mean in Log Scale	-3.35
1157					SD in Original Scale	0.16					SD in Log Scale	1.475
1158					95% t UCL (Assumes normality)	0.134					95% H-Stat UCL	0.196
1159	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1160												
1161	**Nonparametric Distribution Free UCL Statistics**											
1162	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
1163												
1164	**Suggested UCL to Use**											
1165					95% KM Adjusted Gamma UCL	0.153						
1166												
1167	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1168	**Please verify the data were collected from random locations.**											
1169	**If the data were collected using judgmental or other non-random methods,**											
1170	**then contact a statistician to correctly calculate UCLs.**											
1171												
1172	When a data set follows an approximate distribution passing only one of the GOF tests,											
1173	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
1174												
1175	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1176	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1177	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1178												
1179	**Accessible_PFOS+PFHxS_SA10**											
1180												
1181	**General Statistics**											
1182					Total Number of Observations	9					Number of Distinct Observations	4
1183					Number of Detects	3					Number of Non-Detects	6
1184					Number of Distinct Detects	3					Number of Distinct Non-Detects	1
1185					Minimum Detect	0.0053					Minimum Non-Detect	0.005
1186					Maximum Detect	0.13					Maximum Non-Detect	0.005
1187					Variance Detects	0.00392					Percent Non-Detects	66.67%
1188					Mean Detects	0.0709					SD Detects	0.0626
1189					Median Detects	0.0775					CV Detects	0.883
1190					Skewness Detects	-0.467					Kurtosis Detects	N/A
1191					Mean of Logged Detects	-3.279					SD of Logged Detects	1.718
1192												
1193	**Warning: Data set has only 3 Detected Values.**											
1194	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1195												

1196											
1197	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**										
1198	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**										
1199	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**										
1200	**The Chebyshev UCL often results in gross overestimates of the mean.**										
1201	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**										
1202											
1203	**Normal GOF Test on Detects Only**										
1204				Shapiro Wilk Test Statistic	0.992	**Shapiro Wilk GOF Test**					
1205				1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level					
1206				Lilliefors Test Statistic	0.208	**Lilliefors GOF Test**					
1207				1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level					
1208	**Detected Data appear Normal at 1% Significance Level**										
1209	**Note GOF tests may be unreliable for small sample sizes**										
1210											
1211	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
1212				KM Mean	0.027	KM Standard Error of Mean	0.0175				
1213				90KM SD	0.0429	95% KM (BCA) UCL	N/A				
1214				95% KM (t) UCL	0.0595	95% KM (Percentile Bootstrap) UCL	N/A				
1215				95% KM (z) UCL	0.0558	95% KM Bootstrap t UCL	N/A				
1216				90% KM Chebyshev UCL	0.0795	95% KM Chebyshev UCL	0.103				
1217				97.5% KM Chebyshev UCL	0.136	99% KM Chebyshev UCL	0.201				
1218											
1219	**Gamma GOF Tests on Detected Observations Only**										
1220				A-D Test Statistic	0.378	**Anderson-Darling GOF Test**					
1221				5% A-D Critical Value	0.642	Detected data appear Gamma Distributed at 5% Significance Level					
1222				K-S Test Statistic	0.335	**Kolmogorov-Smirnov GOF**					
1223				5% K-S Critical Value	0.441	Detected data appear Gamma Distributed at 5% Significance Level					
1224	**Detected Data Not Gamma Distributed at 5% Significance Level**										
1225											
1226	**Gamma Statistics on Detected Data Only**										
1227				k hat (MLE)	0.921	k star (bias corrected MLE)	N/A				
1228				Theta hat (MLE)	0.077	Theta star (bias corrected MLE)	N/A				
1229				nu hat (MLE)	5.524	nu star (bias corrected)	N/A				
1230				Mean (detects)	0.0709						
1231											
1232	**Gamma ROS Statistics using Imputed Non-Detects**										
1233	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1234	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1235	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1236	This is especially true when the sample size is small.										
1237	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1238				Minimum	0.0053	Mean	0.0303				
1239				Maximum	0.13	Median	0.01				
1240				SD	0.0437	CV	1.441				
1241				k hat (MLE)	0.879	k star (bias corrected MLE)	0.66				
1242				Theta hat (MLE)	0.0345	Theta star (bias corrected MLE)	0.0459				
1243				nu hat (MLE)	15.82	nu star (bias corrected)	11.88				
1244				Adjusted Level of Significance (β)	0.0231						
1245				Approximate Chi Square Value (11.88, α)	5.15	Adjusted Chi Square Value (11.88, β)	4.254				
1246				95% Gamma Approximate UCL	0.0699	95% Gamma Adjusted UCL	N/A				
1247											
1248	**Estimates of Gamma Parameters using KM Estimates**										
1249				Mean (KM)	0.027	SD (KM)	0.0429				

1250					Variance (KM)	0.00184					SE of Mean (KM)	0.0175
1251					k hat (KM)	0.396					k star (KM)	0.338
1252					nu hat (KM)	7.131					nu star (KM)	6.087
1253					theta hat (KM)	0.0681					theta star (KM)	0.0798
1254					80% gamma percentile (KM)	0.0425					90% gamma percentile (KM)	0.0783
1255					95% gamma percentile (KM)	0.119					99% gamma percentile (KM)	0.222
1256												
1257					**Gamma Kaplan-Meier (KM) Statistics**							
1258					Approximate Chi Square Value (6.09, α)	1.685					Adjusted Chi Square Value (6.09, β)	1.244
1259					95% KM Approximate Gamma UCL	0.0975					95% KM Adjusted Gamma UCL	0.132
1260												
1261					**Lognormal GOF Test on Detected Observations Only**							
1262					Shapiro Wilk Test Statistic	0.868					**Shapiro Wilk GOF Test**	
1263					10% Shapiro Wilk Critical Value	0.789					Detected Data appear Lognormal at 10% Significance Level	
1264					Lilliefors Test Statistic	0.329					**Lilliefors GOF Test**	
1265					10% Lilliefors Critical Value	0.389					Detected Data appear Lognormal at 10% Significance Level	
1266					**Detected Data appear Lognormal at 10% Significance Level**							
1267					**Note GOF tests may be unreliable for small sample sizes**							
1268												
1269					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1270					Mean in Original Scale	0.0238					Mean in Log Scale	-7.569
1271					SD in Original Scale	0.0472					SD in Log Scale	3.813
1272					95% t UCL (assumes normality of ROS data)	0.0531					95% Percentile Bootstrap UCL	0.052
1273					95% BCA Bootstrap UCL	0.0606					95% Bootstrap t UCL	0.653
1274					95% H-UCL (Log ROS)	1077717						
1275												
1276					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1277					KM Mean (logged)	-4.625					KM Geo Mean	0.0098
1278					KM SD (logged)	1.25					95% Critical H Value (KM-Log)	3.819
1279					KM Standard Error of Mean (logged)	0.51					95% H-UCL (KM -Log)	0.116
1280					KM SD (logged)	1.25					95% Critical H Value (KM-Log)	3.819
1281					KM Standard Error of Mean (logged)	0.51						
1282												
1283					**DL/2 Statistics**							
1284					**DL/2 Normal**						**DL/2 Log-Transformed**	
1285					Mean in Original Scale	0.0253					Mean in Log Scale	-5.087
1286					SD in Original Scale	0.0464					SD in Log Scale	1.605
1287					95% t UCL (Assumes normality)	0.0541					95% H-Stat UCL	0.323
1288					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1289												
1290					**Nonparametric Distribution Free UCL Statistics**							
1291					**Detected Data appear Normal Distributed at 1% Significance Level**							
1292												
1293					**Suggested UCL to Use**							
1294					95% KM (t) UCL	0.0595						
1295												
1296					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1297					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1298					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1299												
1415	**Accessible_PFOS_On-base Other**											
1416												
1417					**General Statistics**							
1418					Total Number of Observations	125					Number of Distinct Observations	62

1419					Number of Detects	78					Number of Non-Detects	47
1420					Number of Distinct Detects	61					Number of Distinct Non-Detects	1
1421					Minimum Detect	0.0014					Minimum Non-Detect	0.005
1422					Maximum Detect	1.4					Maximum Non-Detect	0.005
1423					Variance Detects	0.0324					Percent Non-Detects	37.6%
1424					Mean Detects	0.0643					SD Detects	0.18
1425					Median Detects	0.016					CV Detects	2.8
1426					Skewness Detects	6.012					Kurtosis Detects	41.17
1427					Mean of Logged Detects	-3.877					SD of Logged Detects	1.295
1428												
1429					**Normal GOF Test on Detects Only**							
1430					Shapiro Wilk Test Statistic	0.353					**Normal GOF Test on Detected Observations Only**	
1431					1% Shapiro Wilk P Value	0					Detected Data Not Normal at 1% Significance Level	
1432					Lilliefors Test Statistic	0.363					**Lilliefors GOF Test**	
1433					1% Lilliefors Critical Value	0.116					Detected Data Not Normal at 1% Significance Level	
1434					**Detected Data Not Normal at 1% Significance Level**							
1435												
1436					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1437					KM Mean	0.0412					KM Standard Error of Mean	0.013
1438					90KM SD	0.144					95% KM (BCA) UCL	0.0661
1439					95% KM (t) UCL	0.0627					95% KM (Percentile Bootstrap) UCL	0.0647
1440					95% KM (z) UCL	0.0626					95% KM Bootstrap t UCL	0.0941
1441					90% KM Chebyshev UCL	0.0802					95% KM Chebyshev UCL	0.0978
1442					97.5% KM Chebyshev UCL	0.122					99% KM Chebyshev UCL	0.17
1443												
1444					**Gamma GOF Tests on Detected Observations Only**							
1445					A-D Test Statistic	6					**Anderson-Darling GOF Test**	
1446					5% A-D Critical Value	0.813					Detected Data Not Gamma Distributed at 5% Significance Level	
1447					K-S Test Statistic	0.212					**Kolmogorov-Smirnov GOF**	
1448					5% K-S Critical Value	0.107					Detected Data Not Gamma Distributed at 5% Significance Level	
1449					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1450												
1451					**Gamma Statistics on Detected Data Only**							
1452					k hat (MLE)	0.552					k star (bias corrected MLE)	0.54
1453					Theta hat (MLE)	0.116					Theta star (bias corrected MLE)	0.119
1454					nu hat (MLE)	86.17					nu star (bias corrected)	84.19
1455					Mean (detects)	0.0643						
1456												
1457					**Gamma ROS Statistics using Imputed Non-Detects**							
1458					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1459					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1460					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1461					This is especially true when the sample size is small.							
1462					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1463					Minimum	0.0014					Mean	0.0439
1464					Maximum	1.4					Median	0.01
1465					SD	0.144					CV	3.289
1466					k hat (MLE)	0.603					k star (bias corrected MLE)	0.594
1467					Theta hat (MLE)	0.0727					Theta star (bias corrected MLE)	0.0739
1468					nu hat (MLE)	150.7					nu star (bias corrected)	148.4
1469					Adjusted Level of Significance (β)	0.0481						
1470					Approximate Chi Square Value (148.43, α)	121.3					Adjusted Chi Square Value (148.43, β)	121
1471					95% Gamma Approximate UCL	0.0537					95% Gamma Adjusted UCL	0.0538
1472												

1473	**Estimates of Gamma Parameters using KM Estimates**											
1474					Mean (KM)	0.0412				SD (KM)		0.144
1475					Variance (KM)	0.0208				SE of Mean (KM)		0.013
1476					k hat (KM)	0.0814				k star (KM)		0.0848
1477					nu hat (KM)	20.35				nu star (KM)		21.2
1478					theta hat (KM)	0.506				theta star (KM)		0.486
1479					80% gamma percentile (KM)	0.0219				90% gamma percentile (KM)		0.101
1480					95% gamma percentile (KM)	0.24				99% gamma percentile (KM)		0.709
1481												
1482	**Gamma Kaplan-Meier (KM) Statistics**											
1483					Approximate Chi Square Value (21.20, α)	11.74				Adjusted Chi Square Value (21.20, β)		11.66
1484					95% KM Approximate Gamma UCL	0.0744				95% KM Adjusted Gamma UCL		0.0749
1485												
1486	**Lognormal GOF Test on Detected Observations Only**											
1487					Shapiro Wilk Approximate Test Statistic	0.954				**Shapiro Wilk GOF Test**		
1488					10% Shapiro Wilk P Value	0.0208				Detected Data Not Lognormal at 10% Significance Level		
1489					Lilliefors Test Statistic	0.129				**Lilliefors GOF Test**		
1490					10% Lilliefors Critical Value	0.0919				Detected Data Not Lognormal at 10% Significance Level		
1491	**Detected Data Not Lognormal at 10% Significance Level**											
1492												
1493	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1494					Mean in Original Scale	0.0409				Mean in Log Scale		-4.838
1495					SD in Original Scale	0.145				SD in Log Scale		1.705
1496					95% t UCL (assumes normality of ROS data)	0.0624				95% Percentile Bootstrap UCL		0.064
1497					95% BCA Bootstrap UCL	0.0739				95% Bootstrap t UCL		0.087
1498					95% H-UCL (Log ROS)	0.053						
1499												
1500	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1501					KM Mean (logged)	-4.637				KM Geo Mean		0.00968
1502					KM SD (logged)	1.426				95% Critical H Value (KM-Log)		2.605
1503					KM Standard Error of Mean (logged)	0.14				95% H-UCL (KM -Log)		0.0374
1504					KM SD (logged)	1.426				95% Critical H Value (KM-Log)		2.605
1505					KM Standard Error of Mean (logged)	0.14						
1506	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1507												
1508	**DL/2 Statistics**											
1509	**DL/2 Normal**									**DL/2 Log-Transformed**		
1510					Mean in Original Scale	0.041				Mean in Log Scale		-4.672
1511					SD in Original Scale	0.145				SD in Log Scale		1.448
1512					95% t UCL (Assumes normality)	0.0625				95% H-Stat UCL		0.0376
1513	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1514												
1515	**Nonparametric Distribution Free UCL Statistics**											
1516	**Data do not follow a Discernible Distribution**											
1517												
1518	**Suggested UCL to Use**											
1519					95% KM (t) UCL	0.0627						
1520												
1521	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1522	**Please verify the data were collected from random locations.**											
1523	**If the data were collected using judgmental or other non-random methods,**											
1524	**then contact a statistician to correctly calculate UCLs.**											
1525												
1526	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

	A	B	C	D	E	F	G	H	I	J	K	L
1527	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1528	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1529												
1530	**Accessible_PFOS_SA01**											
1531												
1532	**General Statistics**											
1533						Total Number of Observations	77				Number of Distinct Observations	61	
1534						Number of Detects	74				Number of Non-Detects	3	
1535						Number of Distinct Detects	60				Number of Distinct Non-Detects	1	
1536						Minimum Detect	0.0054				Minimum Non-Detect	0.005	
1537						Maximum Detect	1.2				Maximum Non-Detect	0.005	
1538						Variance Detects	0.0292				Percent Non-Detects	3.896%	
1539						Mean Detects	0.0875				SD Detects	0.171	
1540						Median Detects	0.0305				CV Detects	1.952	
1541						Skewness Detects	4.536				Kurtosis Detects	25.39	
1542						Mean of Logged Detects	-3.313				SD of Logged Detects	1.227	
1543													
1544	**Normal GOF Test on Detects Only**											
1545						Shapiro Wilk Test Statistic	0.497				**Normal GOF Test on Detected Observations Only**		
1546						1% Shapiro Wilk P Value	0				Detected Data Not Normal at 1% Significance Level		
1547						Lilliefors Test Statistic	0.322				**Lilliefors GOF Test**		
1548						1% Lilliefors Critical Value	0.119				Detected Data Not Normal at 1% Significance Level		
1549	**Detected Data Not Normal at 1% Significance Level**											
1550												
1551	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1552						KM Mean	0.0843				KM Standard Error of Mean	0.0192	
1553						90KM SD	0.167				95% KM (BCA) UCL	0.12	
1554						95% KM (t) UCL	0.116				95% KM (Percentile Bootstrap) UCL	0.117	
1555						95% KM (z) UCL	0.116				95% KM Bootstrap t UCL	0.137	
1556						90% KM Chebyshev UCL	0.142				95% KM Chebyshev UCL	0.168	
1557						97.5% KM Chebyshev UCL	0.204				99% KM Chebyshev UCL	0.275	
1558													
1559	**Gamma GOF Tests on Detected Observations Only**											
1560						A-D Test Statistic	3.601				**Anderson-Darling GOF Test**		
1561						5% A-D Critical Value	0.799				Detected Data Not Gamma Distributed at 5% Significance Level		
1562						K-S Test Statistic	0.163				**Kolmogorov-Smirnov GOF**		
1563						5% K-S Critical Value	0.108				Detected Data Not Gamma Distributed at 5% Significance Level		
1564	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1565													
1566	**Gamma Statistics on Detected Data Only**											
1567						k hat (MLE)	0.691				k star (bias corrected MLE)	0.672	
1568						Theta hat (MLE)	0.127				Theta star (bias corrected MLE)	0.13	
1569						nu hat (MLE)	102.2				nu star (bias corrected)	99.42	
1570						Mean (detects)	0.0875						
1571													
1572	**Gamma ROS Statistics using Imputed Non-Detects**											
1573	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1574	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1575	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1576	This is especially true when the sample size is small.											
1577	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1578						Minimum	0.0054				Mean	0.0845	
1579						Maximum	1.2				Median	0.03	
1580						SD	0.168				CV	1.989	

1581					k hat (MLE)	0.68					k star (bias corrected MLE)	0.663
1582					Theta hat (MLE)	0.124					Theta star (bias corrected MLE)	0.127
1583					nu hat (MLE)	104.8					nu star (bias corrected)	102
1584					Adjusted Level of Significance (β)	0.0469						
1585					Approximate Chi Square Value (102.04, α)	79.73					Adjusted Chi Square Value (102.04, β)	79.35
1586					95% Gamma Approximate UCL	0.108					95% Gamma Adjusted UCL	0.109
1587												
1588					**Estimates of Gamma Parameters using KM Estimates**							
1589					Mean (KM)	0.0843					SD (KM)	0.167
1590					Variance (KM)	0.0279					SE of Mean (KM)	0.0192
1591					k hat (KM)	0.255					k star (KM)	0.253
1592					nu hat (KM)	39.2					nu star (KM)	39
1593					theta hat (KM)	0.331					theta star (KM)	0.333
1594					80% gamma percentile (KM)	0.123					90% gamma percentile (KM)	0.253
1595					95% gamma percentile (KM)	0.406					99% gamma percentile (KM)	0.815
1596												
1597					**Gamma Kaplan-Meier (KM) Statistics**							
1598					Approximate Chi Square Value (39.00, α)	25.7					Adjusted Chi Square Value (39.00, β)	25.49
1599					95% KM Approximate Gamma UCL	0.128					95% KM Adjusted Gamma UCL	0.129
1600												
1601					**Lognormal GOF Test on Detected Observations Only**							
1602					Shapiro Wilk Approximate Test Statistic	0.951					**Shapiro Wilk GOF Test**	
1603					10% Shapiro Wilk P Value	0.0149					Detected Data Not Lognormal at 10% Significance Level	
1604					Lilliefors Test Statistic	0.0924					**Lilliefors GOF Test**	
1605					10% Lilliefors Critical Value	0.0943					Detected Data appear Lognormal at 10% Significance Level	
1606					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
1607												
1608					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1609					Mean in Original Scale	0.0841					Mean in Log Scale	-3.429
1610					SD in Original Scale	0.168					SD in Log Scale	1.337
1611					95% t UCL (assumes normality of ROS data)	0.116					95% Percentile Bootstrap UCL	0.117
1612					95% BCA Bootstrap UCL	0.125					95% Bootstrap t UCL	0.137
1613					95% H-UCL (Log ROS)	0.118						
1614												
1615					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1616					KM Mean (logged)	-3.39					KM Geo Mean	0.0337
1617					KM SD (logged)	1.255					95% Critical H Value (KM-Log)	2.527
1618					KM Standard Error of Mean (logged)	0.144					95% H-UCL (KM -Log)	0.107
1619					KM SD (logged)	1.255					95% Critical H Value (KM-Log)	2.527
1620					KM Standard Error of Mean (logged)	0.144						
1621												
1622					**DL/2 Statistics**							
1623					**DL/2 Normal**						**DL/2 Log-Transformed**	
1624					Mean in Original Scale	0.0842					Mean in Log Scale	-3.417
1625					SD in Original Scale	0.168					SD in Log Scale	1.311
1626					95% t UCL (Assumes normality)	0.116					95% H-Stat UCL	0.114
1627					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1628												
1629					**Nonparametric Distribution Free UCL Statistics**							
1630					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**							
1631												
1632					**Suggested UCL to Use**							
1633					KM H-UCL	0.107						
1634												

1635	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1636	**Please verify the data were collected from random locations.**											
1637	**If the data were collected using judgmental or other non-random methods,**											
1638	**then contact a statistician to correctly calculate UCLs.**											
1639												
1640	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1641	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1642	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1643												
1644	**Accessible_PFOS_SA02**											
1645												
1646	**General Statistics**											
1647	Total Number of Observations				64		Number of Distinct Observations					51
1648	Number of Detects				55		Number of Non-Detects					9
1649	Number of Distinct Detects				50		Number of Distinct Non-Detects					1
1650	Minimum Detect				0.0058		Minimum Non-Detect					0.005
1651	Maximum Detect				4.2		Maximum Non-Detect					0.005
1652	Variance Detects				0.467		Percent Non-Detects					14.06%
1653	Mean Detects				0.314		SD Detects					0.683
1654	Median Detects				0.063		CV Detects					2.179
1655	Skewness Detects				4.372		Kurtosis Detects					21.63
1656	Mean of Logged Detects				-2.456		SD of Logged Detects					1.64
1657												
1658	**Normal GOF Test on Detects Only**											
1659	Shapiro Wilk Test Statistic				0.476		**Normal GOF Test on Detected Observations Only**					
1660	1% Shapiro Wilk P Value				0		Detected Data Not Normal at 1% Significance Level					
1661	Lilliefors Test Statistic				0.326		**Lilliefors GOF Test**					
1662	1% Lilliefors Critical Value				0.138		Detected Data Not Normal at 1% Significance Level					
1663	**Detected Data Not Normal at 1% Significance Level**											
1664												
1665	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1666	KM Mean				0.27		KM Standard Error of Mean					0.0803
1667	90KM SD				0.637		95% KM (BCA) UCL					0.409
1668	95% KM (t) UCL				0.404		95% KM (Percentile Bootstrap) UCL					0.407
1669	95% KM (z) UCL				0.402		95% KM Bootstrap t UCL					0.571
1670	90% KM Chebyshev UCL				0.511		95% KM Chebyshev UCL					0.621
1671	97.5% KM Chebyshev UCL				0.772		99% KM Chebyshev UCL					1.07
1672												
1673	**Gamma GOF Tests on Detected Observations Only**											
1674	A-D Test Statistic				2.051		**Anderson-Darling GOF Test**					
1675	5% A-D Critical Value				0.817		Detected Data Not Gamma Distributed at 5% Significance Level					
1676	K-S Test Statistic				0.172		**Kolmogorov-Smirnov GOF**					
1677	5% K-S Critical Value				0.127		Detected Data Not Gamma Distributed at 5% Significance Level					
1678	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1679												
1680	**Gamma Statistics on Detected Data Only**											
1681	k hat (MLE)				0.491		k star (bias corrected MLE)					0.476
1682	Theta hat (MLE)				0.639		Theta star (bias corrected MLE)					0.658
1683	nu hat (MLE)				54.02		nu star (bias corrected)					52.4
1684	Mean (detects)				0.314							
1685												
1686	**Gamma ROS Statistics using Imputed Non-Detects**											
1687	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1688	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											

1689	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1690	This is especially true when the sample size is small.											
1691	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1692					Minimum	0.0058				Mean		0.271
1693					Maximum	4.2				Median		0.0535
1694					SD	0.642				CV		2.368
1695					k hat (MLE)	0.445				k star (bias corrected MLE)		0.435
1696					Theta hat (MLE)	0.609				Theta star (bias corrected MLE)		0.623
1697					nu hat (MLE)	56.99				nu star (bias corrected)		55.65
1698					Adjusted Level of Significance (β)	0.0463						
1699					Approximate Chi Square Value (55.65, α)	39.5				Adjusted Chi Square Value (55.65, β)		39.19
1700					95% Gamma Approximate UCL	0.382				95% Gamma Adjusted UCL		0.385
1701												
1702	**Estimates of Gamma Parameters using KM Estimates**											
1703					Mean (KM)	0.27				SD (KM)		0.637
1704					Variance (KM)	0.406				SE of Mean (KM)		0.0803
1705					k hat (KM)	0.18				k star (KM)		0.182
1706					nu hat (KM)	23.05				nu star (KM)		23.31
1707					theta hat (KM)	1.501				theta star (KM)		1.484
1708					80% gamma percentile (KM)	0.338				90% gamma percentile (KM)		0.816
1709					95% gamma percentile (KM)	1.426				99% gamma percentile (KM)		3.133
1710												
1711	**Gamma Kaplan-Meier (KM) Statistics**											
1712					Approximate Chi Square Value (23.31, α)	13.32				Adjusted Chi Square Value (23.31, β)		13.15
1713					95% KM Approximate Gamma UCL	0.473				95% KM Adjusted Gamma UCL		0.479
1714												
1715	**Lognormal GOF Test on Detected Observations Only**											
1716					Shapiro Wilk Approximate Test Statistic	0.959				**Shapiro Wilk GOF Test**		
1717					10% Shapiro Wilk P Value	0.118				Detected Data appear Lognormal at 10% Significance Level		
1718					Lilliefors Test Statistic	0.0921				**Lilliefors GOF Test**		
1719					10% Lilliefors Critical Value	0.109				Detected Data appear Lognormal at 10% Significance Level		
1720	**Detected Data appear Lognormal at 10% Significance Level**											
1721												
1722	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1723					Mean in Original Scale	0.27				Mean in Log Scale		-2.987
1724					SD in Original Scale	0.642				SD in Log Scale		2.03
1725					95% t UCL (assumes normality of ROS data)	0.404				95% Percentile Bootstrap UCL		0.404
1726					95% BCA Bootstrap UCL	0.45				95% Bootstrap t UCL		0.556
1727					95% H-UCL (Log ROS)	0.87						
1728												
1729	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1730					KM Mean (logged)	-2.856				KM Geo Mean		0.0575
1731					KM SD (logged)	1.801				95% Critical H Value (KM-Log)		2.811
1732					KM Standard Error of Mean (logged)	0.227				95% H-UCL (KM -Log)		0.551
1733					KM SD (logged)	1.801				95% Critical H Value (KM-Log)		2.811
1734					KM Standard Error of Mean (logged)	0.227						
1735												
1736	**DL/2 Statistics**											
1737	**DL/2 Normal**									**DL/2 Log-Transformed**		
1738					Mean in Original Scale	0.27				Mean in Log Scale		-2.954
1739					SD in Original Scale	0.642				SD in Log Scale		1.959
1740					95% t UCL (Assumes normality)	0.404				95% H-Stat UCL		0.746
1741	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1742												

	A	B	C	D	E	F	G	H	I	J	K	L
1743	**Nonparametric Distribution Free UCL Statistics**											
1744	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
1745												
1746	**Suggested UCL to Use**											
1747					KM H-UCL	0.551						
1748												
1749	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1750	**Please verify the data were collected from random locations.**											
1751	**If the data were collected using judgmental or other non-random methods,**											
1752	**then contact a statistician to correctly calculate UCLs.**											
1753												
1754	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1755	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1756	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1757												
1758	**Accessible_PFOS_SA03**											
1759												
1760	**General Statistics**											
1761					Total Number of Observations	20				Number of Distinct Observations		3
1762					Number of Detects	2				Number of Non-Detects		18
1763					Number of Distinct Detects	2				Number of Distinct Non-Detects		1
1764					Minimum Detect	0.0095				Minimum Non-Detect		0.005
1765					Maximum Detect	0.01				Maximum Non-Detect		0.005
1766					Variance Detects	1.2500E-7				Percent Non-Detects		90%
1767					Mean Detects	0.00975				SD Detects		3.5355E-4
1768					Median Detects	0.00975				CV Detects		0.0363
1769					Skewness Detects	N/A				Kurtosis Detects		N/A
1770					Mean of Logged Detects	-4.631				SD of Logged Detects		0.0363
1771												
1772	**Warning: Data set has only 2 Detected Values.**											
1773	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1774												
1775												
1776	**Normal GOF Test on Detects Only**											
1777	**Not Enough Data to Perform GOF Test**											
1778												
1779	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1780					KM Mean	0.00548				KM Standard Error of Mean		4.5132E-4
1781					90KM SD	0.00143				95% KM (BCA) UCL		N/A
1782					95% KM (t) UCL	0.00626				95% KM (Percentile Bootstrap) UCL		N/A
1783					95% KM (z) UCL	0.00622				95% KM Bootstrap t UCL		N/A
1784					90% KM Chebyshev UCL	0.00683				95% KM Chebyshev UCL		0.00744
1785					97.5% KM Chebyshev UCL	0.00829				99% KM Chebyshev UCL		0.00997
1786												
1787	**Gamma GOF Tests on Detected Observations Only**											
1788	**Not Enough Data to Perform GOF Test**											
1789												
1790	**Gamma Statistics on Detected Data Only**											
1791					k hat (MLE)	1521				k star (bias corrected MLE)		N/A
1792					Theta hat (MLE)	6.4117E-6				Theta star (bias corrected MLE)		N/A
1793					nu hat (MLE)	6083				nu star (bias corrected)		N/A
1794					Mean (detects)	0.00975						
1795												
1796	**Estimates of Gamma Parameters using KM Estimates**											

1797					Mean (KM)	0.00548					SD (KM)	0.00143
1798					Variance (KM)	2.0369E-6					SE of Mean (KM)	4.5132E-4
1799					k hat (KM)	14.72					k star (KM)	12.54
1800					nu hat (KM)	588.7					nu star (KM)	501.7
1801					theta hat (KM)	3.7203E-4					theta star (KM)	4.3652E-4
1802					80% gamma percentile (KM)	0.00672					90% gamma percentile (KM)	0.00753
1803					95% gamma percentile (KM)	0.00824					99% gamma percentile (KM)	0.0097
1804												
1805						**Gamma Kaplan-Meier (KM) Statistics**							
1806											Adjusted Level of Significance (β)	0.038
1807					Approximate Chi Square Value (501.69, α)	450.8					Adjusted Chi Square Value (501.69, β)	446.9
1808					95% KM Approximate Gamma UCL	0.00609					95% KM Adjusted Gamma UCL	0.00615
1809												
1810						**Lognormal GOF Test on Detected Observations Only**							
1811						**Not Enough Data to Perform GOF Test**							
1812												
1813						**Lognormal ROS Statistics Using Imputed Non-Detects**							
1814					Mean in Original Scale	0.00762					Mean in Log Scale	-4.886
1815					SD in Original Scale	0.00109					SD in Log Scale	0.142
1816					95% t UCL (assumes normality of ROS data)	0.00805					95% Percentile Bootstrap UCL	0.00803
1817					95% BCA Bootstrap UCL	0.00804					95% Bootstrap t UCL	0.00806
1818					95% H-UCL (Log ROS)	0.00808						
1819												
1820						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1821					KM Mean (logged)	-5.232					KM Geo Mean	0.00535
1822					KM SD (logged)	0.2					95% Critical H Value (KM-Log)	1.786
1823					KM Standard Error of Mean (logged)	0.0634					95% H-UCL (KM -Log)	0.00592
1824					KM SD (logged)	0.2					95% Critical H Value (KM-Log)	1.786
1825					KM Standard Error of Mean (logged)	0.0634						
1826												
1827						**DL/2 Statistics**							
1828					**DL/2 Normal**						**DL/2 Log-Transformed**	
1829					Mean in Original Scale	0.00323					Mean in Log Scale	-5.855
1830					SD in Original Scale	0.00223					SD in Log Scale	0.419
1831					95% t UCL (Assumes normality)	0.00409					95% H-Stat UCL	0.00377
1832						**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1833												
1834						**Nonparametric Distribution Free UCL Statistics**							
1835						**Data do not follow a Discernible Distribution**							
1836												
1837						**Suggested UCL to Use**							
1838					95% KM (t) UCL	0.00626						
1839												
1840						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1841						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1842						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1843												
1844	**Accessible_PFOS_SA04**											
1845												
1846						**General Statistics**							
1847					Total Number of Observations	16					Number of Distinct Observations	15
1848					Number of Detects	14					Number of Non-Detects	2
1849					Number of Distinct Detects	14					Number of Distinct Non-Detects	1
1850					Minimum Detect	0.11					Minimum Non-Detect	0.005

1851					Maximum Detect	200					Maximum Non-Detect	0.005
1852					Variance Detects	3403					Percent Non-Detects	12.5%
1853					Mean Detects	59.37					SD Detects	58.34
1854					Median Detects	45					CV Detects	0.983
1855					Skewness Detects	1.16					Kurtosis Detects	1.245
1856					Mean of Logged Detects	3.004					SD of Logged Detects	2.222
1857												
1858	**Normal GOF Test on Detects Only**											
1859					Shapiro Wilk Test Statistic	0.888	**Shapiro Wilk GOF Test**					
1860					1% Shapiro Wilk Critical Value	0.825	Detected Data appear Normal at 1% Significance Level					
1861					Lilliefors Test Statistic	0.155	**Lilliefors GOF Test**					
1862					1% Lilliefors Critical Value	0.263	Detected Data appear Normal at 1% Significance Level					
1863	**Detected Data appear Normal at 1% Significance Level**											
1864												
1865	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1866					KM Mean	51.95					KM Standard Error of Mean	14.56
1867					90KM SD	56.13					95% KM (BCA) UCL	74.79
1868					95% KM (t) UCL	77.48					95% KM (Percentile Bootstrap) UCL	75.08
1869					95% KM (z) UCL	75.91					95% KM Bootstrap t UCL	85.28
1870					90% KM Chebyshev UCL	95.64					95% KM Chebyshev UCL	115.4
1871					97.5% KM Chebyshev UCL	142.9					99% KM Chebyshev UCL	196.9
1872												
1873	**Gamma GOF Tests on Detected Observations Only**											
1874					A-D Test Statistic	0.517	**Anderson-Darling GOF Test**					
1875					5% A-D Critical Value	0.786	Detected data appear Gamma Distributed at 5% Significance Level					
1876					K-S Test Statistic	0.204	**Kolmogorov-Smirnov GOF**					
1877					5% K-S Critical Value	0.24	Detected data appear Gamma Distributed at 5% Significance Level					
1878	**Detected data appear Gamma Distributed at 5% Significance Level**											
1879												
1880	**Gamma Statistics on Detected Data Only**											
1881					k hat (MLE)	0.576					k star (bias corrected MLE)	0.5
1882					Theta hat (MLE)	103.1					Theta star (bias corrected MLE)	118.8
1883					nu hat (MLE)	16.12					nu star (bias corrected)	14
1884					Mean (detects)	59.37						
1885												
1886	**Gamma ROS Statistics using Imputed Non-Detects**											
1887	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1888	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1889	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1890	This is especially true when the sample size is small.											
1891	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1892					Minimum	0.11					Mean	52.14
1893					Maximum	200					Median	36
1894					SD	57.79					CV	1.108
1895					k hat (MLE)	0.498					k star (bias corrected MLE)	0.446
1896					Theta hat (MLE)	104.7					Theta star (bias corrected MLE)	116.8
1897					nu hat (MLE)	15.94					nu star (bias corrected)	14.28
1898					Adjusted Level of Significance (β)	0.0335						
1899					Approximate Chi Square Value (14.28, α)	6.766					Adjusted Chi Square Value (14.28, β)	6.185
1900					95% Gamma Approximate UCL	110.1					95% Gamma Adjusted UCL	120.4
1901												
1902	**Estimates of Gamma Parameters using KM Estimates**											
1903					Mean (KM)	51.95					SD (KM)	56.13
1904					Variance (KM)	3151					SE of Mean (KM)	14.56

1905					k hat (KM)	0.857					k star (KM)	0.738
1906					nu hat (KM)	27.41					nu star (KM)	23.61
1907					theta hat (KM)	60.65					theta star (KM)	70.43
1908					80% gamma percentile (KM)	85.23					90% gamma percentile (KM)	128.8
1909					95% gamma percentile (KM)	173.5					99% gamma percentile (KM)	279.8
1910												
1911	**Gamma Kaplan-Meier (KM) Statistics**											
1912					Approximate Chi Square Value (23.61, α)	13.55					Adjusted Chi Square Value (23.61, β)	12.69
1913					95% KM Approximate Gamma UCL	90.51					95% KM Adjusted Gamma UCL	96.66
1914												
1915	**Lognormal GOF Test on Detected Observations Only**											
1916					Shapiro Wilk Test Statistic	0.839	**Shapiro Wilk GOF Test**					
1917					10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level					
1918					Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**					
1919					10% Lilliefors Critical Value	0.208	Detected Data Not Lognormal at 10% Significance Level					
1920	**Detected Data Not Lognormal at 10% Significance Level**											
1921												
1922	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1923					Mean in Original Scale	51.98					Mean in Log Scale	2.415
1924					SD in Original Scale	57.95					SD in Log Scale	2.627
1925					95% t UCL (assumes normality of ROS data)	77.37					95% Percentile Bootstrap UCL	75.14
1926					95% BCA Bootstrap UCL	78.07					95% Bootstrap t UCL	85.3
1927					95% H-UCL (Log ROS)	16693						
1928												
1929	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1930					KM Mean (logged)	1.966					KM Geo Mean	7.143
1931					KM SD (logged)	3.399					95% Critical H Value (KM-Log)	7.219
1932					KM Standard Error of Mean (logged)	0.882					95% H-UCL (KM -Log)	1298878
1933					KM SD (logged)	3.399					95% Critical H Value (KM-Log)	7.219
1934					KM Standard Error of Mean (logged)	0.882						
1935												
1936	**DL/2 Statistics**											
1937	**DL/2 Normal**						**DL/2 Log-Transformed**					
1938					Mean in Original Scale	51.95					Mean in Log Scale	1.88
1939					SD in Original Scale	57.97					SD in Log Scale	3.704
1940					95% t UCL (Assumes normality)	77.36					95% H-Stat UCL	11195282
1941	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1942												
1943	**Nonparametric Distribution Free UCL Statistics**											
1944	**Detected Data appear Normal Distributed at 1% Significance Level**											
1945												
1946	**Suggested UCL to Use**											
1947					95% KM (t) UCL	77.48						
1948												
1949	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1950	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1951	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1952												
1953	**Accessible_PFOS_SA05**											
1954												
1955	**General Statistics**											
1956					Total Number of Observations	33					Number of Distinct Observations	30
1957					Number of Detects	32					Number of Non-Detects	1
1958					Number of Distinct Detects	29					Number of Distinct Non-Detects	1

1959					Minimum Detect	0.0093					Minimum Non-Detect	0.005
1960					Maximum Detect	17					Maximum Non-Detect	0.005
1961					Variance Detects	8.865					Percent Non-Detects	3.03%
1962					Mean Detects	0.782					SD Detects	2.977
1963					Median Detects	0.115					CV Detects	3.808
1964					Skewness Detects	5.551					Kurtosis Detects	31.15
1965					Mean of Logged Detects	-1.974					SD of Logged Detects	1.585
1966												
1967					**Normal GOF Test on Detects Only**							
1968					Shapiro Wilk Test Statistic	0.254					**Shapiro Wilk GOF Test**	
1969					1% Shapiro Wilk Critical Value	0.904					Detected Data Not Normal at 1% Significance Level	
1970					Lilliefors Test Statistic	0.418					**Lilliefors GOF Test**	
1971					1% Lilliefors Critical Value	0.18					Detected Data Not Normal at 1% Significance Level	
1972					**Detected Data Not Normal at 1% Significance Level**							
1973												
1974					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1975					KM Mean	0.758					KM Standard Error of Mean	0.511
1976					90KM SD	2.889					95% KM (BCA) UCL	1.826
1977					95% KM (t) UCL	1.624					95% KM (Percentile Bootstrap) UCL	1.765
1978					95% KM (z) UCL	1.599					95% KM Bootstrap t UCL	7.304
1979					90% KM Chebyshev UCL	2.291					95% KM Chebyshev UCL	2.986
1980					97.5% KM Chebyshev UCL	3.949					99% KM Chebyshev UCL	5.842
1981												
1982					**Gamma GOF Tests on Detected Observations Only**							
1983					A-D Test Statistic	3.038					**Anderson-Darling GOF Test**	
1984					5% A-D Critical Value	0.836					Detected Data Not Gamma Distributed at 5% Significance Level	
1985					K-S Test Statistic	0.225					**Kolmogorov-Smirnov GOF**	
1986					5% K-S Critical Value	0.167					Detected Data Not Gamma Distributed at 5% Significance Level	
1987					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1988												
1989					**Gamma Statistics on Detected Data Only**							
1990					k hat (MLE)	0.383					k star (bias corrected MLE)	0.368
1991					Theta hat (MLE)	2.04					Theta star (bias corrected MLE)	2.123
1992					nu hat (MLE)	24.54					nu star (bias corrected)	23.57
1993					Mean (detects)	0.782						
1994												
1995					**Gamma ROS Statistics using Imputed Non-Detects**							
1996					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1997					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1998					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1999					This is especially true when the sample size is small.							
2000					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2001					Minimum	0.0093					Mean	0.759
2002					Maximum	17					Median	0.11
2003					SD	2.934					CV	3.867
2004					k hat (MLE)	0.374					k star (bias corrected MLE)	0.36
2005					Theta hat (MLE)	2.027					Theta star (bias corrected MLE)	2.105
2006					nu hat (MLE)	24.7					nu star (bias corrected)	23.79
2007					Adjusted Level of Significance (β)	0.0419						
2008					Approximate Chi Square Value (23.79, α)	13.69					Adjusted Chi Square Value (23.79, β)	13.29
2009					95% Gamma Approximate UCL	1.318					95% Gamma Adjusted UCL	1.358
2010												
2011					**Estimates of Gamma Parameters using KM Estimates**							
2012					Mean (KM)	0.758					SD (KM)	2.889

2013					Variance (KM)	8.346					SE of Mean (KM)	0.511
2014					k hat (KM)	0.0689					k star (KM)	0.0829
2015					nu hat (KM)	4.549					nu star (KM)	5.468
2016					theta hat (KM)	11					theta star (KM)	9.153
2017					80% gamma percentile (KM)	0.386					90% gamma percentile (KM)	1.837
2018					95% gamma percentile (KM)	4.416					99% gamma percentile (KM)	13.21
2019												
2020					**Gamma Kaplan-Meier (KM) Statistics**							
2021					Approximate Chi Square Value (5.47, α)	1.374					Adjusted Chi Square Value (5.47, β)	1.273
2022					95% KM Approximate Gamma UCL	3.017					95% KM Adjusted Gamma UCL	3.258
2023					95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)							
2024												
2025					**Lognormal GOF Test on Detected Observations Only**							
2026					Shapiro Wilk Test Statistic	0.961					**Shapiro Wilk GOF Test**	
2027					10% Shapiro Wilk Critical Value	0.941					Detected Data appear Lognormal at 10% Significance Level	
2028					Lilliefors Test Statistic	0.0791					**Lilliefors GOF Test**	
2029					10% Lilliefors Critical Value	0.142					Detected Data appear Lognormal at 10% Significance Level	
2030					**Detected Data appear Lognormal at 10% Significance Level**							
2031												
2032					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2033					Mean in Original Scale	0.758					Mean in Log Scale	-2.094
2034					SD in Original Scale	2.934					SD in Log Scale	1.706
2035					95% t UCL (assumes normality of ROS data)	1.623					95% Percentile Bootstrap UCL	1.733
2036					95% BCA Bootstrap UCL	2.287					95% Bootstrap t UCL	7.511
2037					95% H-UCL (Log ROS)	1.473						
2038												
2039					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2040					KM Mean (logged)	-2.075					KM Geo Mean	0.126
2041					KM SD (logged)	1.638					95% Critical H Value (KM-Log)	3.304
2042					KM Standard Error of Mean (logged)	0.29					95% H-UCL (KM -Log)	1.252
2043					KM SD (logged)	1.638					95% Critical H Value (KM-Log)	3.304
2044					KM Standard Error of Mean (logged)	0.29						
2045												
2046					**DL/2 Statistics**							
2047					**DL/2 Normal**						**DL/2 Log-Transformed**	
2048					Mean in Original Scale	0.758					Mean in Log Scale	-2.096
2049					SD in Original Scale	2.934					SD in Log Scale	1.71
2050					95% t UCL (Assumes normality)	1.623					95% H-Stat UCL	1.486
2051					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2052												
2053					**Nonparametric Distribution Free UCL Statistics**							
2054					**Detected Data appear Lognormal Distributed at 10% Significance Level**							
2055												
2056					**Suggested UCL to Use**							
2057					KM H-UCL	1.252						
2058												
2059					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2060					**Please verify the data were collected from random locations.**							
2061					**If the data were collected using judgmental or other non-random methods,**							
2062					**then contact a statistician to correctly calculate UCLs.**							
2063												
2064					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2065					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2066					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							

	A	B	C	D	E	F	G	H	I	J	K	L
2067												
2068	**Accessible_PFOS_SA06**											
2069												
2070	**General Statistics**											
2071					Total Number of Observations	8			Number of Distinct Observations			7
2072					Number of Detects	6			Number of Non-Detects			2
2073					Number of Distinct Detects	6			Number of Distinct Non-Detects			1
2074					Minimum Detect	0.011			Minimum Non-Detect			0.005
2075					Maximum Detect	12			Maximum Non-Detect			0.005
2076					Variance Detects	28.73			Percent Non-Detects			25%
2077					Mean Detects	3.397			SD Detects			5.36
2078					Median Detects	0.027			CV Detects			1.578
2079					Skewness Detects	1.17			Kurtosis Detects			-0.674
2080					Mean of Logged Detects	-1.913			SD of Logged Detects			3.29
2081												
2082	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
2083	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
2084	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
2085	**The Chebyshev UCL often results in gross overestimates of the mean.**											
2086	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
2087												
2088	**Normal GOF Test on Detects Only**											
2089					Shapiro Wilk Test Statistic	0.701			**Shapiro Wilk GOF Test**			
2090					1% Shapiro Wilk Critical Value	0.713			Detected Data Not Normal at 1% Significance Level			
2091					Lilliefors Test Statistic	0.401			**Lilliefors GOF Test**			
2092					1% Lilliefors Critical Value	0.373			Detected Data Not Normal at 1% Significance Level			
2093	**Detected Data Not Normal at 1% Significance Level**											
2094												
2095	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2096					KM Mean	2.549			KM Standard Error of Mean			1.737
2097					90KM SD	4.485			95% KM (BCA) UCL			5.545
2098					95% KM (t) UCL	5.84			95% KM (Percentile Bootstrap) UCL			5.542
2099					95% KM (z) UCL	5.406			95% KM Bootstrap t UCL			1047
2100					90% KM Chebyshev UCL	7.76			95% KM Chebyshev UCL			10.12
2101					97.5% KM Chebyshev UCL	13.4			99% KM Chebyshev UCL			19.83
2102												
2103	**Gamma GOF Tests on Detected Observations Only**											
2104					A-D Test Statistic	0.925			**Anderson-Darling GOF Test**			
2105					5% A-D Critical Value	0.791			Detected Data Not Gamma Distributed at 5% Significance Level			
2106					K-S Test Statistic	0.389			**Kolmogorov-Smirnov GOF**			
2107					5% K-S Critical Value	0.362			Detected Data Not Gamma Distributed at 5% Significance Level			
2108	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2109												
2110	**Gamma Statistics on Detected Data Only**											
2111					k hat (MLE)	0.23			k star (bias corrected MLE)			0.226
2112					Theta hat (MLE)	14.79			Theta star (bias corrected MLE)			15.04
2113					nu hat (MLE)	2.755			nu star (bias corrected)			2.711
2114					Mean (detects)	3.397						
2115												
2116	**Gamma ROS Statistics using Imputed Non-Detects**											
2117	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2118	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2119	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2120	This is especially true when the sample size is small.											

2121	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2122					Minimum	0.01				Mean		2.55
2123					Maximum	12				Median		0.016
2124					SD	4.794				CV		1.88
2125					k hat (MLE)	0.208				k star (bias corrected MLE)		0.213
2126					Theta hat (MLE)	12.28				Theta star (bias corrected MLE)		11.96
2127					nu hat (MLE)	3.323				nu star (bias corrected)		3.41
2128					Adjusted Level of Significance (β)	0.0195						
2129					Approximate Chi Square Value (3.41, α)	0.504				Adjusted Chi Square Value (3.41, β)		0.296
2130					95% Gamma Approximate UCL	17.27				95% Gamma Adjusted UCL		29.43
2131												
2132	**Estimates of Gamma Parameters using KM Estimates**											
2133					Mean (KM)	2.549				SD (KM)		4.485
2134					Variance (KM)	20.12				SE of Mean (KM)		1.737
2135					k hat (KM)	0.323				k star (KM)		0.285
2136					nu hat (KM)	5.167				nu star (KM)		4.563
2137					theta hat (KM)	7.892				theta star (KM)		8.938
2138					80% gamma percentile (KM)	3.858				90% gamma percentile (KM)		7.561
2139					95% gamma percentile (KM)	11.85				99% gamma percentile (KM)		23.06
2140												
2141	**Gamma Kaplan-Meier (KM) Statistics**											
2142					Approximate Chi Square Value (4.56, α)	0.956				Adjusted Chi Square Value (4.56, β)		0.609
2143					95% KM Approximate Gamma UCL	12.17				95% KM Adjusted Gamma UCL		19.09
2144												
2145	**Lognormal GOF Test on Detected Observations Only**											
2146					Shapiro Wilk Test Statistic	0.742				**Shapiro Wilk GOF Test**		
2147					10% Shapiro Wilk Critical Value	0.826				Detected Data Not Lognormal at 10% Significance Level		
2148					Lilliefors Test Statistic	0.33				**Lilliefors GOF Test**		
2149					10% Lilliefors Critical Value	0.298				Detected Data Not Lognormal at 10% Significance Level		
2150	**Detected Data Not Lognormal at 10% Significance Level**											
2151												
2152	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2153					Mean in Original Scale	2.548				Mean in Log Scale		-3.867
2154					SD in Original Scale	4.795				SD in Log Scale		4.597
2155					95% t UCL (assumes normality of ROS data)	5.76				95% Percentile Bootstrap UCL		5.541
2156					95% BCA Bootstrap UCL	6.115				95% Bootstrap t UCL		986
2157					95% H-UCL (Log ROS)	1.659E+13						
2158												
2159	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2160					KM Mean (logged)	-2.76				KM Geo Mean		0.0633
2161					KM SD (logged)	2.986				95% Critical H Value (KM-Log)		8.965
2162					KM Standard Error of Mean (logged)	1.156				95% H-UCL (KM -Log)		135372
2163					KM SD (logged)	2.986				95% Critical H Value (KM-Log)		8.965
2164					KM Standard Error of Mean (logged)	1.156						
2165												
2166	**DL/2 Statistics**											
2167	**DL/2 Normal**									**DL/2 Log-Transformed**		
2168					Mean in Original Scale	2.548				Mean in Log Scale		-2.933
2169					SD in Original Scale	4.795				SD in Log Scale		3.361
2170					95% t UCL (Assumes normality)	5.76				95% H-Stat UCL		5337887
2171	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2172												
2173	**Nonparametric Distribution Free UCL Statistics**											
2174	**Data do not follow a Discernible Distribution**											

2175												
2176	**Suggested UCL to Use**											
2177					95% KM (t) UCL	5.84						
2178												
2179	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2180	**Please verify the data were collected from random locations.**											
2181	**If the data were collected using judgmental or other non-random methods,**											
2182	**then contact a statistician to correctly calculate UCLs.**											
2183												
2184	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2185	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2186	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2187												
2188	**Accessible_PFOS_SA07**											
2189												
2190	**General Statistics**											
2191					Total Number of Observations	47			Number of Distinct Observations	37		
2192					Number of Detects	44			Number of Non-Detects	3		
2193					Number of Distinct Detects	37			Number of Distinct Non-Detects	1		
2194					Minimum Detect	0.005			Minimum Non-Detect	0.005		
2195					Maximum Detect	0.45			Maximum Non-Detect	0.005		
2196					Variance Detects	0.00708			Percent Non-Detects	6.383%		
2197					Mean Detects	0.0457			SD Detects	0.0841		
2198					Median Detects	0.0165			CV Detects	1.839		
2199					Skewness Detects	3.617			Kurtosis Detects	14.07		
2200					Mean of Logged Detects	-3.852			SD of Logged Detects	1.094		
2201												
2202	**Normal GOF Test on Detects Only**											
2203					Shapiro Wilk Test Statistic	0.503			**Shapiro Wilk GOF Test**			
2204					1% Shapiro Wilk Critical Value	0.924			Detected Data Not Normal at 1% Significance Level			
2205					Lilliefors Test Statistic	0.323			**Lilliefors GOF Test**			
2206					1% Lilliefors Critical Value	0.154			Detected Data Not Normal at 1% Significance Level			
2207	**Detected Data Not Normal at 1% Significance Level**											
2208												
2209	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2210					KM Mean	0.0431			KM Standard Error of Mean	0.012		
2211					90KM SD	0.0811			95% KM (BCA) UCL	0.0673		
2212					95% KM (t) UCL	0.0632			95% KM (Percentile Bootstrap) UCL	0.0651		
2213					95% KM (z) UCL	0.0628			95% KM Bootstrap t UCL	0.088		
2214					90% KM Chebyshev UCL	0.079			95% KM Chebyshev UCL	0.0953		
2215					97.5% KM Chebyshev UCL	0.118			99% KM Chebyshev UCL	0.162		
2216												
2217	**Gamma GOF Tests on Detected Observations Only**											
2218					A-D Test Statistic	3.104			**Anderson-Darling GOF Test**			
2219					5% A-D Critical Value	0.788			Detected Data Not Gamma Distributed at 5% Significance Level			
2220					K-S Test Statistic	0.199			**Kolmogorov-Smirnov GOF**			
2221					5% K-S Critical Value	0.138			Detected Data Not Gamma Distributed at 5% Significance Level			
2222	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2223												
2224	**Gamma Statistics on Detected Data Only**											
2225					k hat (MLE)	0.777			k star (bias corrected MLE)	0.739		
2226					Theta hat (MLE)	0.0589			Theta star (bias corrected MLE)	0.0619		
2227					nu hat (MLE)	68.35			nu star (bias corrected)	65.02		
2228					Mean (detects)	0.0457						

	A	B	C	D	E	F	G	H	I	J	K	L
2229												
2230	**Gamma ROS Statistics using Imputed Non-Detects**											
2231	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2232	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2233	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2234	This is especially true when the sample size is small.											
2235	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2236					Minimum	0.005				Mean	0.0435	
2237					Maximum	0.45				Median	0.015	
2238					SD	0.0818				CV	1.882	
2239					k hat (MLE)	0.779				k star (bias corrected MLE)	0.744	
2240					Theta hat (MLE)	0.0558				Theta star (bias corrected MLE)	0.0584	
2241					nu hat (MLE)	73.27				nu star (bias corrected)	69.92	
2242					Adjusted Level of Significance (β)	0.0449						
2243					Approximate Chi Square Value (69.92, α)	51.67				Adjusted Chi Square Value (69.92, β)	51.18	
2244					95% Gamma Approximate UCL	0.0588				95% Gamma Adjusted UCL	0.0594	
2245												
2246	**Estimates of Gamma Parameters using KM Estimates**											
2247					Mean (KM)	0.0431				SD (KM)	0.0811	
2248					Variance (KM)	0.00657				SE of Mean (KM)	0.012	
2249					k hat (KM)	0.283				k star (KM)	0.279	
2250					nu hat (KM)	26.61				nu star (KM)	26.25	
2251					theta hat (KM)	0.152				theta star (KM)	0.155	
2252					80% gamma percentile (KM)	0.0649				90% gamma percentile (KM)	0.128	
2253					95% gamma percentile (KM)	0.202				99% gamma percentile (KM)	0.395	
2254												
2255	**Gamma Kaplan-Meier (KM) Statistics**											
2256					Approximate Chi Square Value (26.25, α)	15.57				Adjusted Chi Square Value (26.25, β)	15.31	
2257					95% KM Approximate Gamma UCL	0.0727				95% KM Adjusted Gamma UCL	0.074	
2258												
2259	**Lognormal GOF Test on Detected Observations Only**											
2260					Shapiro Wilk Test Statistic	0.912				**Shapiro Wilk GOF Test**		
2261					10% Shapiro Wilk Critical Value	0.952				Detected Data Not Lognormal at 10% Significance Level		
2262					Lilliefors Test Statistic	0.131				**Lilliefors GOF Test**		
2263					10% Lilliefors Critical Value	0.122				Detected Data Not Lognormal at 10% Significance Level		
2264	**Detected Data Not Lognormal at 10% Significance Level**											
2265												
2266	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2267					Mean in Original Scale	0.0429				Mean in Log Scale	-4.015	
2268					SD in Original Scale	0.0821				SD in Log Scale	1.233	
2269					95% t UCL (assumes normality of ROS data)	0.063				95% Percentile Bootstrap UCL	0.0646	
2270					95% BCA Bootstrap UCL	0.0705				95% Bootstrap t UCL	0.085	
2271					95% H-UCL (Log ROS)	0.0619						
2272												
2273	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2274					KM Mean (logged)	-3.944				KM Geo Mean	0.0194	
2275					KM SD (logged)	1.105				95% Critical H Value (KM-Log)	2.445	
2276					KM Standard Error of Mean (logged)	0.163				95% H-UCL (KM -Log)	0.0531	
2277					KM SD (logged)	1.105				95% Critical H Value (KM-Log)	2.445	
2278					KM Standard Error of Mean (logged)	0.163						
2279												
2280	**DL/2 Statistics**											
2281	**DL/2 Normal**									**DL/2 Log-Transformed**		
2282					Mean in Original Scale	0.043				Mean in Log Scale	-3.988	

2283				SD in Original Scale		0.082				SD in Log Scale		1.183
2284			95% t UCL (Assumes normality)			0.0631				95% H-Stat UCL		0.058
2285	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2286												
2287	**Nonparametric Distribution Free UCL Statistics**											
2288	**Data do not follow a Discernible Distribution**											
2289												
2290	**Suggested UCL to Use**											
2291				95% KM (t) UCL		0.0632						
2292												
2293	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2294	**Please verify the data were collected from random locations.**											
2295	**If the data were collected using judgmental or other non-random methods,**											
2296	**then contact a statistician to correctly calculate UCLs.**											
2297												
2298	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2299	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2300	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2301												
2302	**Accessible_PFOS_SA08**											
2303												
2304	**General Statistics**											
2305				Total Number of Observations		46				Number of Distinct Observations		39
2306				Number of Detects		41				Number of Non-Detects		5
2307				Number of Distinct Detects		38				Number of Distinct Non-Detects		1
2308				Minimum Detect		0.0056				Minimum Non-Detect		0.005
2309				Maximum Detect		0.83				Maximum Non-Detect		0.005
2310				Variance Detects		0.0227				Percent Non-Detects		10.87%
2311				Mean Detects		0.0965				SD Detects		0.151
2312				Median Detects		0.049				CV Detects		1.562
2313				Skewness Detects		3.378				Kurtosis Detects		13.96
2314				Mean of Logged Detects		-3.13				SD of Logged Detects		1.26
2315												
2316	**Normal GOF Test on Detects Only**											
2317				Shapiro Wilk Test Statistic		0.609				**Shapiro Wilk GOF Test**		
2318				1% Shapiro Wilk Critical Value		0.92				Detected Data Not Normal at 1% Significance Level		
2319				Lilliefors Test Statistic		0.273				**Lilliefors GOF Test**		
2320				1% Lilliefors Critical Value		0.16				Detected Data Not Normal at 1% Significance Level		
2321	**Detected Data Not Normal at 1% Significance Level**											
2322												
2323	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2324				KM Mean		0.0866				KM Standard Error of Mean		0.0214
2325				90KM SD		0.143				95% KM (BCA) UCL		0.128
2326				95% KM (t) UCL		0.123				95% KM (Percentile Bootstrap) UCL		0.125
2327				95% KM (z) UCL		0.122				95% KM Bootstrap t UCL		0.148
2328				90% KM Chebyshev UCL		0.151				95% KM Chebyshev UCL		0.18
2329				97.5% KM Chebyshev UCL		0.22				99% KM Chebyshev UCL		0.3
2330												
2331	**Gamma GOF Tests on Detected Observations Only**											
2332				A-D Test Statistic		1.169				**Anderson-Darling GOF Test**		
2333				5% A-D Critical Value		0.789				Detected Data Not Gamma Distributed at 5% Significance Level		
2334				K-S Test Statistic		0.131				**Kolmogorov-Smirnov GOF**		
2335				5% K-S Critical Value		0.143				Detected data appear Gamma Distributed at 5% Significance Level		
2336	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											

2337												
2338	**Gamma Statistics on Detected Data Only**											
2339					k hat (MLE)	0.755			k star (bias corrected MLE)	0.716		
2340					Theta hat (MLE)	0.128			Theta star (bias corrected MLE)	0.135		
2341					nu hat (MLE)	61.95			nu star (bias corrected)	58.75		
2342					Mean (detects)	0.0965						
2343												
2344	**Gamma ROS Statistics using Imputed Non-Detects**											
2345	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2346	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2347	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2348	This is especially true when the sample size is small.											
2349	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2350					Minimum	0.0056			Mean	0.0871		
2351					Maximum	0.83			Median	0.03		
2352					SD	0.145			CV	1.661		
2353					k hat (MLE)	0.71			k star (bias corrected MLE)	0.678		
2354					Theta hat (MLE)	0.123			Theta star (bias corrected MLE)	0.128		
2355					nu hat (MLE)	65.32			nu star (bias corrected)	62.4		
2356					Adjusted Level of Significance (β)	0.0448						
2357					Approximate Chi Square Value (62.40, α)	45.23			Adjusted Chi Square Value (62.40, β)	44.75		
2358					95% Gamma Approximate UCL	0.12			95% Gamma Adjusted UCL	0.121		
2359												
2360	**Estimates of Gamma Parameters using KM Estimates**											
2361					Mean (KM)	0.0866			SD (KM)	0.143		
2362					Variance (KM)	0.0206			SE of Mean (KM)	0.0214		
2363					k hat (KM)	0.364			k star (KM)	0.355		
2364					nu hat (KM)	33.52			nu star (KM)	32.67		
2365					theta hat (KM)	0.238			theta star (KM)	0.244		
2366					80% gamma percentile (KM)	0.137			90% gamma percentile (KM)	0.249		
2367					95% gamma percentile (KM)	0.375			99% gamma percentile (KM)	0.693		
2368												
2369	**Gamma Kaplan-Meier (KM) Statistics**											
2370					Approximate Chi Square Value (32.67, α)	20.6			Adjusted Chi Square Value (32.67, β)	20.29		
2371					95% KM Approximate Gamma UCL	0.137			95% KM Adjusted Gamma UCL	0.139		
2372												
2373	**Lognormal GOF Test on Detected Observations Only**											
2374					Shapiro Wilk Test Statistic	0.964			**Shapiro Wilk GOF Test**			
2375					10% Shapiro Wilk Critical Value	0.95			Detected Data appear Lognormal at 10% Significance Level			
2376					Lilliefors Test Statistic	0.0976			**Lilliefors GOF Test**			
2377					10% Lilliefors Critical Value	0.126			Detected Data appear Lognormal at 10% Significance Level			
2378	**Detected Data appear Lognormal at 10% Significance Level**											
2379												
2380	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2381					Mean in Original Scale	0.0863			Mean in Log Scale	-3.449		
2382					SD in Original Scale	0.145			SD in Log Scale	1.511		
2383					95% t UCL (assumes normality of ROS data)	0.122			95% Percentile Bootstrap UCL	0.123		
2384					95% BCA Bootstrap UCL	0.133			95% Bootstrap t UCL	0.147		
2385					95% H-UCL (Log ROS)	0.193						
2386												
2387	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2388					KM Mean (logged)	-3.365			KM Geo Mean	0.0345		
2389					KM SD (logged)	1.355			95% Critical H Value (KM-Log)	2.733		
2390					KM Standard Error of Mean (logged)	0.202			95% H-UCL (KM -Log)	0.15		

2391					KM SD (logged)	1.355				95% Critical H Value (KM-Log)		2.733
2392					KM Standard Error of Mean (logged)	0.202						
2393												
2394						**DL/2 Statistics**						
2395					**DL/2 Normal**					**DL/2 Log-Transformed**		
2396					Mean in Original Scale	0.0863				Mean in Log Scale		-3.441
2397					SD in Original Scale	0.145				SD in Log Scale		1.491
2398					95% t UCL (Assumes normality)	0.122				95% H-Stat UCL		0.186
2399					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2400												
2401					**Nonparametric Distribution Free UCL Statistics**							
2402					**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**							
2403												
2404					**Suggested UCL to Use**							
2405					95% KM Adjusted Gamma UCL	0.139						
2406												
2407					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2408					**Please verify the data were collected from random locations.**							
2409					**If the data were collected using judgmental or other non-random methods,**							
2410					**then contact a statistician to correctly calculate UCLs.**							
2411												
2412					When a data set follows an approximate distribution passing only one of the GOF tests,							
2413					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
2414												
2415					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2416					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2417					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2418												
2419	**Accessible_PFOS_SA10**											
2420												
2421						**General Statistics**						
2422					Total Number of Observations	9				Number of Distinct Observations		4
2423					Number of Detects	3				Number of Non-Detects		6
2424					Number of Distinct Detects	3				Number of Distinct Non-Detects		1
2425					Minimum Detect	0.0053				Minimum Non-Detect		0.005
2426					Maximum Detect	0.13				Maximum Non-Detect		0.005
2427					Variance Detects	0.00389				Percent Non-Detects		66.67%
2428					Mean Detects	0.0684				SD Detects		0.0624
2429					Median Detects	0.07				CV Detects		0.911
2430					Skewness Detects	-0.113				Kurtosis Detects		N/A
2431					Mean of Logged Detects	-3.313				SD of Logged Detects		1.697
2432												
2433					**Warning: Data set has only 3 Detected Values.**							
2434					**This is not enough to compute meaningful or reliable statistics and estimates.**							
2435												
2436												
2437					**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
2438					**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
2439					**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
2440					**The Chebyshev UCL often results in gross overestimates of the mean.**							
2441					**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
2442												
2443						**Normal GOF Test on Detects Only**							
2444					Shapiro Wilk Test Statistic	1				**Shapiro Wilk GOF Test**		

2445				1% Shapiro Wilk Critical Value		0.753	Detected Data appear Normal at 1% Significance Level					
2446				Lilliefors Test Statistic		0.178	**Lilliefors GOF Test**					
2447				1% Lilliefors Critical Value		0.429	Detected Data appear Normal at 1% Significance Level					
2448	**Detected Data appear Normal at 1% Significance Level**											
2449	**Note GOF tests may be unreliable for small sample sizes**											
2450												
2451	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2452				KM Mean		0.0261	KM Standard Error of Mean					0.0171
2453				90KM SD		0.0419	95% KM (BCA) UCL					N/A
2454				95% KM (t) UCL		0.058	95% KM (Percentile Bootstrap) UCL					N/A
2455				95% KM (z) UCL		0.0543	95% KM Bootstrap t UCL					N/A
2456				90% KM Chebyshev UCL		0.0775	95% KM Chebyshev UCL					0.101
2457				97.5% KM Chebyshev UCL		0.133	99% KM Chebyshev UCL					0.196
2458												
2459	**Gamma GOF Tests on Detected Observations Only**											
2460				A-D Test Statistic		0.342	**Anderson-Darling GOF Test**					
2461				5% A-D Critical Value		0.642	Detected data appear Gamma Distributed at 5% Significance Level					
2462				K-S Test Statistic		0.312	**Kolmogorov-Smirnov GOF**					
2463				5% K-S Critical Value		0.441	Detected data appear Gamma Distributed at 5% Significance Level					
2464	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2465												
2466	**Gamma Statistics on Detected Data Only**											
2467				k hat (MLE)		0.923	k star (bias corrected MLE)					N/A
2468				Theta hat (MLE)		0.0741	Theta star (bias corrected MLE)					N/A
2469				nu hat (MLE)		5.539	nu star (bias corrected)					N/A
2470				Mean (detects)		0.0684						
2471												
2472	**Gamma ROS Statistics using Imputed Non-Detects**											
2473	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2474	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2475	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2476	This is especially true when the sample size is small.											
2477	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2478				Minimum		0.0053	Mean					0.0295
2479				Maximum		0.13	Median					0.01
2480				SD		0.0427	CV					1.45
2481				k hat (MLE)		0.899	k star (bias corrected MLE)					0.673
2482				Theta hat (MLE)		0.0328	Theta star (bias corrected MLE)					0.0438
2483				nu hat (MLE)		16.18	nu star (bias corrected)					12.12
2484				Adjusted Level of Significance (β)		0.0231						
2485				Approximate Chi Square Value (12.12, α)		5.307	Adjusted Chi Square Value (12.12, β)					4.395
2486				95% Gamma Approximate UCL		0.0673	95% Gamma Adjusted UCL					N/A
2487												
2488	**Estimates of Gamma Parameters using KM Estimates**											
2489				Mean (KM)		0.0261	SD (KM)					0.0419
2490				Variance (KM)		0.00176	SE of Mean (KM)					0.0171
2491				k hat (KM)		0.389	k star (KM)					0.333
2492				nu hat (KM)		6.997	nu star (KM)					5.998
2493				theta hat (KM)		0.0673	theta star (KM)					0.0785
2494				80% gamma percentile (KM)		0.041	90% gamma percentile (KM)					0.076
2495				95% gamma percentile (KM)		0.116	99% gamma percentile (KM)					0.217
2496												
2497	**Gamma Kaplan-Meier (KM) Statistics**											
2498				Approximate Chi Square Value (6.00, α)		1.639	Adjusted Chi Square Value (6.00, β)					1.206

2499			95% KM Approximate Gamma UCL			0.0957			95% KM Adjusted Gamma UCL			0.13
2500												
2501	**Lognormal GOF Test on Detected Observations Only**											
2502			Shapiro Wilk Test Statistic			0.889	**Shapiro Wilk GOF Test**					
2503			10% Shapiro Wilk Critical Value			0.789	Detected Data appear Lognormal at 10% Significance Level					
2504			Lilliefors Test Statistic			0.317	**Lilliefors GOF Test**					
2505			10% Lilliefors Critical Value			0.389	Detected Data appear Lognormal at 10% Significance Level					
2506	**Detected Data appear Lognormal at 10% Significance Level**											
2507	**Note GOF tests may be unreliable for small sample sizes**											
2508												
2509	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2510			Mean in Original Scale			0.023			Mean in Log Scale			-7.619
2511			SD in Original Scale			0.0462			SD in Log Scale			3.824
2512			95% t UCL (assumes normality of ROS data)			0.0516			95% Percentile Bootstrap UCL			0.0512
2513			95% BCA Bootstrap UCL			0.059			95% Bootstrap t UCL			0.616
2514			95% H-UCL (Log ROS)			1165827						
2515												
2516	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2517			KM Mean (logged)			-4.637			KM Geo Mean			0.00969
2518			KM SD (logged)			1.231			95% Critical H Value (KM-Log)			3.774
2519			KM Standard Error of Mean (logged)			0.503			95% H-UCL (KM -Log)			0.107
2520			KM SD (logged)			1.231			95% Critical H Value (KM-Log)			3.774
2521			KM Standard Error of Mean (logged)			0.503						
2522												
2523	**DL/2 Statistics**											
2524	**DL/2 Normal**						**DL/2 Log-Transformed**					
2525			Mean in Original Scale			0.0245			Mean in Log Scale			-5.099
2526			SD in Original Scale			0.0454			SD in Log Scale			1.585
2527			95% t UCL (Assumes normality)			0.0526			95% H-Stat UCL			0.292
2528	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2529												
2530	**Nonparametric Distribution Free UCL Statistics**											
2531	**Detected Data appear Normal Distributed at 1% Significance Level**											
2532												
2533	**Suggested UCL to Use**											
2534			95% KM (t) UCL			0.058						
2535												
2536	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2537	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2538	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2539												
2655	**Accessible_PFOA_On-base Other**											
2656												
2657	**General Statistics**											
2658			Total Number of Observations			125			Number of Distinct Observations			7
2659			Number of Detects			8			Number of Non-Detects			117
2660			Number of Distinct Detects			6			Number of Distinct Non-Detects			2
2661			Minimum Detect			2.0000E-4			Minimum Non-Detect			2.0000E-4
2662			Maximum Detect			0.023			Maximum Non-Detect			0.005
2663			Variance Detects			8.6706E-5			Percent Non-Detects			93.6%
2664			Mean Detects			0.0076			SD Detects			0.00931
2665			Median Detects			0.0031			CV Detects			1.225
2666			Skewness Detects			0.852			Kurtosis Detects			-1.007
2667			Mean of Logged Detects			-6.369			SD of Logged Detects			2.227

2668												
2669	**Normal GOF Test on Detects Only**											
2670					Shapiro Wilk Test Statistic	0.806	**Shapiro Wilk GOF Test**					
2671					1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level					
2672					Lilliefors Test Statistic	0.283	**Lilliefors GOF Test**					
2673					1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level					
2674	**Detected Data appear Normal at 1% Significance Level**											
2675	**Note GOF tests may be unreliable for small sample sizes**											
2676												
2677	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2678					KM Mean	6.7971E-4				KM Standard Error of Mean	2.7273E-4	
2679					90KM SD	0.00285				95% KM (BCA) UCL	0.00118	
2680					95% KM (t) UCL	0.00113				95% KM (Percentile Bootstrap) UCL	0.00114	
2681					95% KM (z) UCL	0.00113				95% KM Bootstrap t UCL	0.00168	
2682					90% KM Chebyshev UCL	0.0015				95% KM Chebyshev UCL	0.00187	
2683					97.5% KM Chebyshev UCL	0.00238				99% KM Chebyshev UCL	0.00339	
2684	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2685												
2686	**Gamma GOF Tests on Detected Observations Only**											
2687					A-D Test Statistic	0.778	**Anderson-Darling GOF Test**					
2688					5% A-D Critical Value	0.774	Detected Data Not Gamma Distributed at 5% Significance Level					
2689					K-S Test Statistic	0.309	**Kolmogorov-Smirnov GOF**					
2690					5% K-S Critical Value	0.312	Detected data appear Gamma Distributed at 5% Significance Level					
2691	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
2692	**Note GOF tests may be unreliable for small sample sizes**											
2693												
2694	**Gamma Statistics on Detected Data Only**											
2695					k hat (MLE)	0.436				k star (bias corrected MLE)	0.356	
2696					Theta hat (MLE)	0.0174				Theta star (bias corrected MLE)	0.0214	
2697					nu hat (MLE)	6.971				nu star (bias corrected)	5.69	
2698					Mean (detects)	0.0076						
2699												
2700	**Gamma ROS Statistics using Imputed Non-Detects**											
2701	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2702	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2703	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2704	This is especially true when the sample size is small.											
2705	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2706					Minimum	2.0000E-4				Mean	0.00985	
2707					Maximum	0.023				Median	0.01	
2708					SD	0.00229				CV	0.233	
2709					k hat (MLE)	5.293				k star (bias corrected MLE)	5.171	
2710					Theta hat (MLE)	0.00186				Theta star (bias corrected MLE)	0.0019	
2711					nu hat (MLE)	1323				nu star (bias corrected)	1293	
2712					Adjusted Level of Significance (β)	0.0481						
2713					Approximate Chi Square Value (N/A, α)	1210				Adjusted Chi Square Value (N/A, β)	1209	
2714					95% Gamma Approximate UCL	0.0105				95% Gamma Adjusted UCL	0.0105	
2715												
2716	**Estimates of Gamma Parameters using KM Estimates**											
2717					Mean (KM)	6.7971E-4				SD (KM)	0.00285	
2718					Variance (KM)	8.1306E-6				SE of Mean (KM)	2.7273E-4	
2719					k hat (KM)	0.0568				k star (KM)	0.0608	
2720					nu hat (KM)	14.21				nu star (KM)	15.2	
2721					theta hat (KM)	0.012				theta star (KM)	0.0112	

2722					80% gamma percentile (KM)	1.7022E-4					90% gamma percentile (KM)	0.0013
2723					95% gamma percentile (KM)	0.00382					99% gamma percentile (KM)	0.0136
2724												
2725						**Gamma Kaplan-Meier (KM) Statistics**							
2726					Approximate Chi Square Value (15.20, α)	7.4					Adjusted Chi Square Value (15.20, β)	7.336
2727					95% KM Approximate Gamma UCL	0.0014					95% KM Adjusted Gamma UCL	0.00141
2728					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2729												
2730						**Lognormal GOF Test on Detected Observations Only**							
2731					Shapiro Wilk Test Statistic	0.777					**Shapiro Wilk GOF Test**	
2732					10% Shapiro Wilk Critical Value	0.851					Detected Data Not Lognormal at 10% Significance Level	
2733					Lilliefors Test Statistic	0.283					**Lilliefors GOF Test**	
2734					10% Lilliefors Critical Value	0.265					Detected Data Not Lognormal at 10% Significance Level	
2735						**Detected Data Not Lognormal at 10% Significance Level**						
2736												
2737						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2738					Mean in Original Scale	6.1685E-4					Mean in Log Scale	-11.31
2739					SD in Original Scale	0.0029					SD in Log Scale	3.027
2740					95% t UCL (assumes normality of ROS data)	0.00105					95% Percentile Bootstrap UCL	0.00107
2741					95% BCA Bootstrap UCL	0.00121					95% Bootstrap t UCL	0.00156
2742					95% H-UCL (Log ROS)	0.00409						
2743												
2744						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2745					KM Mean (logged)	-8.355					KM Geo Mean	2.3523E-4
2746					KM SD (logged)	0.746					95% Critical H Value (KM-Log)	1.982
2747					KM Standard Error of Mean (logged)	0.0763					95% H-UCL (KM -Log)	3.5487E-4
2748					KM SD (logged)	0.746					95% Critical H Value (KM-Log)	1.982
2749					KM Standard Error of Mean (logged)	0.0763						
2750						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**						
2751												
2752						**DL/2 Statistics**						
2753					**DL/2 Normal**						**DL/2 Log-Transformed**	
2754					Mean in Original Scale	0.00263					Mean in Log Scale	-6.273
2755					SD in Original Scale	0.00265					SD in Log Scale	1.022
2756					95% t UCL (Assumes normality)	0.00303					95% H-Stat UCL	0.0039
2757						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2758												
2759						**Nonparametric Distribution Free UCL Statistics**						
2760						**Detected Data appear Normal Distributed at 1% Significance Level**						
2761												
2762						**Suggested UCL to Use**						
2763					95% KM (t) UCL	0.00113						
2764												
2765						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2766						**Please verify the data were collected from random locations.**						
2767						**If the data were collected using judgmental or other non-random methods,**						
2768						**then contact a statistician to correctly calculate UCLs.**						
2769												
2770						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2771						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2772						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2773												
2774	**Accessible_PFOA_SA01**											
2775												

	A	B	C	D	E	F	G	H	I	J	K	L
2776	**General Statistics**											
2777					Total Number of Observations	77				Number of Distinct Observations		3
2778					Number of Detects	2				Number of Non-Detects		75
2779					Number of Distinct Detects	2				Number of Distinct Non-Detects		1
2780					Minimum Detect	0.0067				Minimum Non-Detect		0.005
2781					Maximum Detect	0.0077				Maximum Non-Detect		0.005
2782					Variance Detects	5.0000E-7				Percent Non-Detects		97.4%
2783					Mean Detects	0.0072				SD Detects		7.0711E-4
2784					Median Detects	0.0072				CV Detects		0.0982
2785					Skewness Detects	N/A				Kurtosis Detects		N/A
2786					Mean of Logged Detects	-4.936				SD of Logged Detects		0.0984
2787												
2788	**Warning: Data set has only 2 Detected Values.**											
2789	**This is not enough to compute meaningful or reliable statistics and estimates.**											
2790												
2791												
2792	**Normal GOF Test on Detects Only**											
2793	**Not Enough Data to Perform GOF Test**											
2794												
2795	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2796					KM Mean	0.00506				KM Standard Error of Mean		5.7872E-5
2797					90KM SD	3.5909E-4				95% KM (BCA) UCL		N/A
2798					95% KM (t) UCL	0.00515				95% KM (Percentile Bootstrap) UCL		N/A
2799					95% KM (z) UCL	0.00515				95% KM Bootstrap t UCL		N/A
2800					90% KM Chebyshev UCL	0.00523				95% KM Chebyshev UCL		0.00531
2801					97.5% KM Chebyshev UCL	0.00542				99% KM Chebyshev UCL		0.00563
2802												
2803	**Gamma GOF Tests on Detected Observations Only**											
2804	**Not Enough Data to Perform GOF Test**											
2805												
2806	**Gamma Statistics on Detected Data Only**											
2807					k hat (MLE)	207				k star (bias corrected MLE)		N/A
2808					Theta hat (MLE)	3.4778E-5				Theta star (bias corrected MLE)		N/A
2809					nu hat (MLE)	828.1				nu star (bias corrected)		N/A
2810					Mean (detects)	0.0072						
2811												
2812	**Estimates of Gamma Parameters using KM Estimates**											
2813					Mean (KM)	0.00506				SD (KM)		3.5909E-4
2814					Variance (KM)	1.2894E-7				SE of Mean (KM)		5.7872E-5
2815					k hat (KM)	198.3				k star (KM)		190.6
2816					nu hat (KM)	30545				nu star (KM)		29356
2817					theta hat (KM)	2.5497E-5				theta star (KM)		2.6530E-5
2818					80% gamma percentile (KM)	0.00536				90% gamma percentile (KM)		0.00553
2819					95% gamma percentile (KM)	0.00567				99% gamma percentile (KM)		0.00595
2820												
2821	**Gamma Kaplan-Meier (KM) Statistics**											
2822										Adjusted Level of Significance (β)		0.0469
2823					Approximate Chi Square Value (N/A, α)	28959				Adjusted Chi Square Value (N/A, β)		28951
2824					95% KM Approximate Gamma UCL	0.00513				95% KM Adjusted Gamma UCL		0.00513
2825												
2826	**Lognormal GOF Test on Detected Observations Only**											
2827	**Not Enough Data to Perform GOF Test**											
2828												
2829	**Lognormal ROS Statistics Using Imputed Non-Detects**											

2830					Mean in Original Scale	0.00253					Mean in Log Scale	-6.103
2831					SD in Original Scale	0.00134					SD in Log Scale	0.503
2832				95% t UCL (assumes normality of ROS data)		0.00279					95% Percentile Bootstrap UCL	0.00279
2833					95% BCA Bootstrap UCL	0.0028					95% Bootstrap t UCL	0.00281
2834					95% H-UCL (Log ROS)	0.00282						
2835												
2836	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2837					KM Mean (logged)	-5.289					KM Geo Mean	0.00505
2838					KM SD (logged)	0.0587					95% Critical H Value (KM-Log)	N/A
2839				KM Standard Error of Mean (logged)		0.00946					95% H-UCL (KM -Log)	N/A
2840					KM SD (logged)	0.0587					95% Critical H Value (KM-Log)	N/A
2841				KM Standard Error of Mean (logged)		0.00946						
2842												
2843	**DL/2 Statistics**											
2844	**DL/2 Normal**						**DL/2 Log-Transformed**					
2845					Mean in Original Scale	0.00262					Mean in Log Scale	-5.964
2846					SD in Original Scale	7.5683E-4					SD in Log Scale	0.169
2847				95% t UCL (Assumes normality)		0.00277					95% H-Stat UCL	0.00269
2848	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2849												
2850	**Nonparametric Distribution Free UCL Statistics**											
2851	**Data do not follow a Discernible Distribution**											
2852												
2853	**Suggested UCL to Use**											
2854					95% KM (t) UCL	0.00515						
2855												
2856	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2857	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2858	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2859												
2860	**Accessible_PFOA_SA02**											
2861												
2862	**General Statistics**											
2863					Total Number of Observations	64					Number of Distinct Observations	10
2864					Number of Detects	9					Number of Non-Detects	55
2865					Number of Distinct Detects	9					Number of Distinct Non-Detects	1
2866					Minimum Detect	0.0074					Minimum Non-Detect	0.005
2867					Maximum Detect	0.076					Maximum Non-Detect	0.005
2868					Variance Detects	5.0811E-4					Percent Non-Detects	85.94%
2869					Mean Detects	0.0253					SD Detects	0.0225
2870					Median Detects	0.019					CV Detects	0.891
2871					Skewness Detects	1.724					Kurtosis Detects	2.746
2872					Mean of Logged Detects	-3.971					SD of Logged Detects	0.786
2873												
2874	**Normal GOF Test on Detects Only**											
2875					Shapiro Wilk Test Statistic	0.792	**Shapiro Wilk GOF Test**					
2876					1% Shapiro Wilk Critical Value	0.764	Detected Data appear Normal at 1% Significance Level					
2877					Lilliefors Test Statistic	0.26	**Lilliefors GOF Test**					
2878					1% Lilliefors Critical Value	0.316	Detected Data appear Normal at 1% Significance Level					
2879	**Detected Data appear Normal at 1% Significance Level**											
2880	**Note GOF tests may be unreliable for small sample sizes**											
2881												
2882	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2883					KM Mean	0.00785					KM Standard Error of Mean	0.00141

2884					90KM SD	0.0106					95% KM (BCA) UCL	0.0103
2885					95% KM (t) UCL	0.0102					95% KM (Percentile Bootstrap) UCL	0.0103
2886					95% KM (z) UCL	0.0102					95% KM Bootstrap t UCL	0.0131
2887					90% KM Chebyshev UCL	0.0121					95% KM Chebyshev UCL	0.014
2888					97.5% KM Chebyshev UCL	0.0167					99% KM Chebyshev UCL	0.0219
2889												
2890					**Gamma GOF Tests on Detected Observations Only**							
2891					A-D Test Statistic	0.397					**Anderson-Darling GOF Test**	
2892					5% A-D Critical Value	0.731					Detected data appear Gamma Distributed at 5% Significance Level	
2893					K-S Test Statistic	0.189					**Kolmogorov-Smirnov GOF**	
2894					5% K-S Critical Value	0.283					Detected data appear Gamma Distributed at 5% Significance Level	
2895					**Detected data appear Gamma Distributed at 5% Significance Level**							
2896					**Note GOF tests may be unreliable for small sample sizes**							
2897												
2898					**Gamma Statistics on Detected Data Only**							
2899					k hat (MLE)	1.851					k star (bias corrected MLE)	1.308
2900					Theta hat (MLE)	0.0137					Theta star (bias corrected MLE)	0.0193
2901					nu hat (MLE)	33.31					nu star (bias corrected)	23.54
2902					Mean (detects)	0.0253						
2903												
2904					**Gamma ROS Statistics using Imputed Non-Detects**							
2905					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2906					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2907					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2908					This is especially true when the sample size is small.							
2909					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2910					Minimum	0.0074					Mean	0.0122
2911					Maximum	0.076					Median	0.01
2912					SD	0.00966					CV	0.795
2913					k hat (MLE)	4.892					k star (bias corrected MLE)	4.673
2914					Theta hat (MLE)	0.00248					Theta star (bias corrected MLE)	0.0026
2915					nu hat (MLE)	626.2					nu star (bias corrected)	598.2
2916					Adjusted Level of Significance (β)	0.0463						
2917					Approximate Chi Square Value (598.19, α)	542.5					Adjusted Chi Square Value (598.19, β)	541.2
2918					95% Gamma Approximate UCL	0.0134					95% Gamma Adjusted UCL	0.0134
2919												
2920					**Estimates of Gamma Parameters using KM Estimates**							
2921					Mean (KM)	0.00785					SD (KM)	0.0106
2922					Variance (KM)	1.1331E-4					SE of Mean (KM)	0.00141
2923					k hat (KM)	0.544					k star (KM)	0.529
2924					nu hat (KM)	69.69					nu star (KM)	67.76
2925					theta hat (KM)	0.0144					theta star (KM)	0.0148
2926					80% gamma percentile (KM)	0.0129					90% gamma percentile (KM)	0.021
2927					95% gamma percentile (KM)	0.0296					99% gamma percentile (KM)	0.0505
2928												
2929					**Gamma Kaplan-Meier (KM) Statistics**							
2930					Approximate Chi Square Value (67.76, α)	49.81					Adjusted Chi Square Value (67.76, β)	49.46
2931					95% KM Approximate Gamma UCL	0.0107					95% KM Adjusted Gamma UCL	0.0108
2932												
2933					**Lognormal GOF Test on Detected Observations Only**							
2934					Shapiro Wilk Test Statistic	0.944					**Shapiro Wilk GOF Test**	
2935					10% Shapiro Wilk Critical Value	0.859					Detected Data appear Lognormal at 10% Significance Level	
2936					Lilliefors Test Statistic	0.162					**Lilliefors GOF Test**	
2937					10% Lilliefors Critical Value	0.252					Detected Data appear Lognormal at 10% Significance Level	

	A	B	C	D	E	F	G	H	I	J	K	L
2938	**Detected Data appear Lognormal at 10% Significance Level**											
2939	**Note GOF tests may be unreliable for small sample sizes**											
2940												
2941	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2942					Mean in Original Scale	0.0044				Mean in Log Scale	-7.45	
2943					SD in Original Scale	0.0118				SD in Log Scale	2.17	
2944				95% t UCL (assumes normality of ROS data)		0.00686				95% Percentile Bootstrap UCL	0.00694	
2945					95% BCA Bootstrap UCL	0.00771				95% Bootstrap t UCL	0.0092	
2946					95% H-UCL (Log ROS)	0.0146						
2947												
2948	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2949					KM Mean (logged)	-5.112				KM Geo Mean	0.00603	
2950					KM SD (logged)	0.539				95% Critical H Value (KM-Log)	1.89	
2951					KM Standard Error of Mean (logged)	0.0714				95% H-UCL (KM -Log)	0.00792	
2952					KM SD (logged)	0.539				95% Critical H Value (KM-Log)	1.89	
2953					KM Standard Error of Mean (logged)	0.0714						
2954												
2955	**DL/2 Statistics**											
2956	**DL/2 Normal**						**DL/2 Log-Transformed**					
2957					Mean in Original Scale	0.00571				Mean in Log Scale	-5.707	
2958					SD in Original Scale	0.0113				SD in Log Scale	0.761	
2959					95% t UCL (Assumes normality)	0.00807				95% H-Stat UCL	0.00541	
2960	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2961												
2962	**Nonparametric Distribution Free UCL Statistics**											
2963	**Detected Data appear Normal Distributed at 1% Significance Level**											
2964												
2965	**Suggested UCL to Use**											
2966					95% KM (t) UCL	0.0102						
2967												
2968	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2969	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2970	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2971												
2972	**Accessible_PFOA_SA03**											
2973												
2974	**General Statistics**											
2975					Total Number of Observations	20				Number of Distinct Observations	1	
2976					Number of Detects	0				Number of Non-Detects	20	
2977					Number of Distinct Detects	0				Number of Distinct Non-Detects	1	
2978												
2979	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
2980	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
2981	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
2982												
2983	**The data set for variable Accessible_PFOA_SA03 was not processed!**											
2984												
2985												
2986	**Accessible_PFOA_SA04**											
2987												
2988	**General Statistics**											
2989					Total Number of Observations	16				Number of Distinct Observations	15	
2990					Number of Detects	14				Number of Non-Detects	2	
2991					Number of Distinct Detects	14				Number of Distinct Non-Detects	1	

2992					Minimum Detect	0.0062					Minimum Non-Detect	0.005
2993					Maximum Detect	3.2					Maximum Non-Detect	0.005
2994					Variance Detects	0.836					Percent Non-Detects	12.5%
2995					Mean Detects	0.421					SD Detects	0.915
2996					Median Detects	0.056					CV Detects	2.174
2997					Skewness Detects	2.698					Kurtosis Detects	7.104
2998					Mean of Logged Detects	-2.507					SD of Logged Detects	1.752
2999												
3000					**Normal GOF Test on Detects Only**							
3001					Shapiro Wilk Test Statistic	0.513				**Shapiro Wilk GOF Test**		
3002					1% Shapiro Wilk Critical Value	0.825				Detected Data Not Normal at 1% Significance Level		
3003					Lilliefors Test Statistic	0.406				**Lilliefors GOF Test**		
3004					1% Lilliefors Critical Value	0.263				Detected Data Not Normal at 1% Significance Level		
3005					**Detected Data Not Normal at 1% Significance Level**							
3006												
3007					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
3008					KM Mean	0.369				KM Standard Error of Mean		0.217
3009					90KM SD	0.836				95% KM (BCA) UCL		0.746
3010					95% KM (t) UCL	0.749				95% KM (Percentile Bootstrap) UCL		0.745
3011					95% KM (z) UCL	0.725				95% KM Bootstrap t UCL		3.02
3012					90% KM Chebyshev UCL	1.019				95% KM Chebyshev UCL		1.314
3013					97.5% KM Chebyshev UCL	1.723				99% KM Chebyshev UCL		2.526
3014												
3015					**Gamma GOF Tests on Detected Observations Only**							
3016					A-D Test Statistic	1.482				**Anderson-Darling GOF Test**		
3017					5% A-D Critical Value	0.812				Detected Data Not Gamma Distributed at 5% Significance Level		
3018					K-S Test Statistic	0.31				**Kolmogorov-Smirnov GOF**		
3019					5% K-S Critical Value	0.245				Detected Data Not Gamma Distributed at 5% Significance Level		
3020					**Detected Data Not Gamma Distributed at 5% Significance Level**							
3021												
3022					**Gamma Statistics on Detected Data Only**							
3023					k hat (MLE)	0.401				k star (bias corrected MLE)		0.363
3024					Theta hat (MLE)	1.049				Theta star (bias corrected MLE)		1.16
3025					nu hat (MLE)	11.23				nu star (bias corrected)		10.15
3026					Mean (detects)	0.421						
3027												
3028					**Gamma ROS Statistics using Imputed Non-Detects**							
3029					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
3030					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
3031					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
3032					This is especially true when the sample size is small.							
3033					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
3034					Minimum	0.0062				Mean		0.369
3035					Maximum	3.2				Median		0.049
3036					SD	0.863				CV		2.336
3037					k hat (MLE)	0.375				k star (bias corrected MLE)		0.346
3038					Theta hat (MLE)	0.985				Theta star (bias corrected MLE)		1.066
3039					nu hat (MLE)	12				nu star (bias corrected)		11.08
3040					Adjusted Level of Significance (β)	0.0335						
3041					Approximate Chi Square Value (11.08, α)	4.631				Adjusted Chi Square Value (11.08, β)		4.165
3042					95% Gamma Approximate UCL	0.884				95% Gamma Adjusted UCL		0.983
3043												
3044					**Estimates of Gamma Parameters using KM Estimates**							
3045					Mean (KM)	0.369				SD (KM)		0.836

3046					Variance (KM)	0.698					SE of Mean (KM)	0.217
3047					k hat (KM)	0.195					k star (KM)	0.2
3048					nu hat (KM)	6.228					nu star (KM)	6.394
3049					theta hat (KM)	1.894					theta star (KM)	1.845
3050					80% gamma percentile (KM)	0.486					90% gamma percentile (KM)	1.115
3051					95% gamma percentile (KM)	1.9					99% gamma percentile (KM)	4.062
3052												
3053					**Gamma Kaplan-Meier (KM) Statistics**							
3054					Approximate Chi Square Value (6.39, α)	1.844					Adjusted Chi Square Value (6.39, β)	1.58
3055					95% KM Approximate Gamma UCL	1.278					95% KM Adjusted Gamma UCL	1.492
3056												
3057					**Lognormal GOF Test on Detected Observations Only**							
3058					Shapiro Wilk Test Statistic	0.919					**Shapiro Wilk GOF Test**	
3059					10% Shapiro Wilk Critical Value	0.895					Detected Data appear Lognormal at 10% Significance Level	
3060					Lilliefors Test Statistic	0.202					**Lilliefors GOF Test**	
3061					10% Lilliefors Critical Value	0.208					Detected Data appear Lognormal at 10% Significance Level	
3062					**Detected Data appear Lognormal at 10% Significance Level**							
3063												
3064					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3065					Mean in Original Scale	0.368					Mean in Log Scale	-3.017
3066					SD in Original Scale	0.863					SD in Log Scale	2.151
3067					95% t UCL (assumes normality of ROS data)	0.747					95% Percentile Bootstrap UCL	0.739
3068					95% BCA Bootstrap UCL	0.922					95% Bootstrap t UCL	2.985
3069					95% H-UCL (Log ROS)	6.943						
3070												
3071					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3072					KM Mean (logged)	-2.856					KM Geo Mean	0.0575
3073					KM SD (logged)	1.829					95% Critical H Value (KM-Log)	4.147
3074					KM Standard Error of Mean (logged)	0.475					95% H-UCL (KM -Log)	2.173
3075					KM SD (logged)	1.829					95% Critical H Value (KM-Log)	4.147
3076					KM Standard Error of Mean (logged)	0.475						
3077												
3078					**DL/2 Statistics**							
3079					**DL/2 Normal**						**DL/2 Log-Transformed**	
3080					Mean in Original Scale	0.368					Mean in Log Scale	-2.942
3081					SD in Original Scale	0.863					SD in Log Scale	2.019
3082					95% t UCL (Assumes normality)	0.747					95% H-Stat UCL	4.242
3083					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3084												
3085					**Nonparametric Distribution Free UCL Statistics**							
3086					**Detected Data appear Lognormal Distributed at 10% Significance Level**							
3087												
3088					**Suggested UCL to Use**							
3089					KM (t) UCL	0.749						
3090												
3091					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3092					**Please verify the data were collected from random locations.**							
3093					**If the data were collected using judgmental or other non-random methods,**							
3094					**then contact a statistician to correctly calculate UCLs.**							
3095												
3096					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3097					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3098					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3099												

	A	B	C	D	E	F	G	H	I	J	K	L
3100	Accessible_PFOA_SA05											
3101												
3102	General Statistics											
3103	Total Number of Observations					33	Number of Distinct Observations					4
3104	Number of Detects					3	Number of Non-Detects					30
3105	Number of Distinct Detects					3	Number of Distinct Non-Detects					1
3106	Minimum Detect					0.0075	Minimum Non-Detect					0.005
3107	Maximum Detect					0.021	Maximum Non-Detect					0.005
3108	Variance Detects					4.6583E-5	Percent Non-Detects					90.91%
3109	Mean Detects					0.0148	SD Detects					0.00683
3110	Median Detects					0.016	CV Detects					0.46
3111	Skewness Detects					-0.747	Kurtosis Detects					N/A
3112	Mean of Logged Detects					-4.297	SD of Logged Detects					0.534
3113												
3114	Warning: Data set has only 3 Detected Values.											
3115	This is not enough to compute meaningful or reliable statistics and estimates.											
3116												
3117												
3118	Normal GOF Test on Detects Only											
3119	Shapiro Wilk Test Statistic					0.978	Shapiro Wilk GOF Test					
3120	1% Shapiro Wilk Critical Value					0.753	Detected Data appear Normal at 1% Significance Level					
3121	Lilliefors Test Statistic					0.235	Lilliefors GOF Test					
3122	1% Lilliefors Critical Value					0.429	Detected Data appear Normal at 1% Significance Level					
3123	Detected Data appear Normal at 1% Significance Level											
3124	Note GOF tests may be unreliable for small sample sizes											
3125												
3126	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
3127	KM Mean					0.00589	KM Standard Error of Mean					7.0112E-4
3128	90KM SD					0.00329	95% KM (BCA) UCL					N/A
3129	95% KM (t) UCL					0.00708	95% KM (Percentile Bootstrap) UCL					N/A
3130	95% KM (z) UCL					0.00705	95% KM Bootstrap t UCL					N/A
3131	90% KM Chebyshev UCL					0.008	95% KM Chebyshev UCL					0.00895
3132	97.5% KM Chebyshev UCL					0.0103	99% KM Chebyshev UCL					0.0129
3133												
3134	Gamma GOF Tests on Detected Observations Only											
3135	A-D Test Statistic					0.319	Anderson-Darling GOF Test					
3136	5% A-D Critical Value					0.637	Detected data appear Gamma Distributed at 5% Significance Level					
3137	K-S Test Statistic					0.293	Kolmogorov-Smirnov GOF					
3138	5% K-S Critical Value					0.433	Detected data appear Gamma Distributed at 5% Significance Level					
3139	Detected Data Not Gamma Distributed at 5% Significance Level											
3140												
3141	Gamma Statistics on Detected Data Only											
3142	k hat (MLE)					5.962	k star (bias corrected MLE)					N/A
3143	Theta hat (MLE)					0.00249	Theta star (bias corrected MLE)					N/A
3144	nu hat (MLE)					35.77	nu star (bias corrected)					N/A
3145	Mean (detects)					0.0148						
3146												
3147	Gamma ROS Statistics using Imputed Non-Detects											
3148	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3149	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3150	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3151	This is especially true when the sample size is small.											
3152	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3153	Minimum					0.0075	Mean					0.0104

3154					Maximum	0.021					Median	0.01
3155					SD	0.00221					CV	0.212
3156					k hat (MLE)	33.51					k star (bias corrected MLE)	30.49
3157					Theta hat (MLE)	3.1150E-4					Theta star (bias corrected MLE)	3.4242E-4
3158					nu hat (MLE)	2212					nu star (bias corrected)	2012
3159					Adjusted Level of Significance (β)	0.0419						
3160					Approximate Chi Square Value (N/A, α)	1909					Adjusted Chi Square Value (N/A, β)	1904
3161					95% Gamma Approximate UCL	0.011					95% Gamma Adjusted UCL	N/A
3162												
3163					**Estimates of Gamma Parameters using KM Estimates**							
3164					Mean (KM)	0.00589					SD (KM)	0.00329
3165					Variance (KM)	1.0815E-5					SE of Mean (KM)	7.0112E-4
3166					k hat (KM)	3.212					k star (KM)	2.94
3167					nu hat (KM)	212					nu star (KM)	194.1
3168					theta hat (KM)	0.00183					theta star (KM)	0.002
3169					80% gamma percentile (KM)	0.00843					90% gamma percentile (KM)	0.0105
3170					95% gamma percentile (KM)	0.0124					99% gamma percentile (KM)	0.0166
3171												
3172					**Gamma Kaplan-Meier (KM) Statistics**							
3173					Approximate Chi Square Value (194.07, α)	162.8					Adjusted Chi Square Value (194.07, β)	161.4
3174					95% KM Approximate Gamma UCL	0.00702					95% KM Adjusted Gamma UCL	0.00709
3175												
3176					**Lognormal GOF Test on Detected Observations Only**							
3177					Shapiro Wilk Test Statistic	0.931					**Shapiro Wilk GOF Test**	
3178					10% Shapiro Wilk Critical Value	0.789					Detected Data appear Lognormal at 10% Significance Level	
3179					Lilliefors Test Statistic	0.286					**Lilliefors GOF Test**	
3180					10% Lilliefors Critical Value	0.389					Detected Data appear Lognormal at 10% Significance Level	
3181					**Detected Data appear Lognormal at 10% Significance Level**							
3182					**Note GOF tests may be unreliable for small sample sizes**							
3183												
3184					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3185					Mean in Original Scale	0.00216					Mean in Log Scale	-7.596
3186					SD in Original Scale	0.00455					SD in Log Scale	1.808
3187					95% t UCL (assumes normality of ROS data)	0.0035					95% Percentile Bootstrap UCL	0.00349
3188					95% BCA Bootstrap UCL	0.00397					95% Bootstrap t UCL	0.0057
3189					95% H-UCL (Log ROS)	0.00803						
3190												
3191					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3192					KM Mean (logged)	-5.207					KM Geo Mean	0.00548
3193					KM SD (logged)	0.316					95% Critical H Value (KM-Log)	1.807
3194					KM Standard Error of Mean (logged)	0.0675					95% H-UCL (KM -Log)	0.00637
3195					KM SD (logged)	0.316					95% Critical H Value (KM-Log)	1.807
3196					KM Standard Error of Mean (logged)	0.0675						
3197												
3198					**DL/2 Statistics**							
3199					**DL/2 Normal**						**DL/2 Log-Transformed**	
3200					Mean in Original Scale	0.00362					Mean in Log Scale	-5.837
3201					SD in Original Scale	0.00398					SD in Log Scale	0.512
3202					95% t UCL (Assumes normality)	0.0048					95% H-Stat UCL	0.00397
3203					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3204												
3205					**Nonparametric Distribution Free UCL Statistics**							
3206					**Detected Data appear Normal Distributed at 1% Significance Level**							
3207												

3208	**Suggested UCL to Use**											
3209					95% KM (t) UCL	0.00708						
3210												
3211	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3212	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3213	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3214												
3215	**Accessible_PFOA_SA06**											
3216												
3217	**General Statistics**											
3218					Total Number of Observations	8			Number of Distinct Observations	3		
3219					Number of Detects	2			Number of Non-Detects	6		
3220					Number of Distinct Detects	2			Number of Distinct Non-Detects	1		
3221					Minimum Detect	0.013			Minimum Non-Detect	0.005		
3222					Maximum Detect	0.73			Maximum Non-Detect	0.005		
3223					Variance Detects	0.257			Percent Non-Detects	75%		
3224					Mean Detects	0.372			SD Detects	0.507		
3225					Median Detects	0.372			CV Detects	1.365		
3226					Skewness Detects	N/A			Kurtosis Detects	N/A		
3227					Mean of Logged Detects	-2.329			SD of Logged Detects	2.848		
3228												
3229	**Warning: Data set has only 2 Detected Values.**											
3230	**This is not enough to compute meaningful or reliable statistics and estimates.**											
3231												
3232												
3233	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
3234	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
3235	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
3236	**The Chebyshev UCL often results in gross overestimates of the mean.**											
3237	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
3238												
3239	**Normal GOF Test on Detects Only**											
3240	**Not Enough Data to Perform GOF Test**											
3241												
3242	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3243					KM Mean	0.0966			KM Standard Error of Mean	0.12		
3244					90KM SD	0.239			95% KM (BCA) UCL	N/A		
3245					95% KM (t) UCL	0.323			95% KM (Percentile Bootstrap) UCL	N/A		
3246					95% KM (z) UCL	0.294			95% KM Bootstrap t UCL	N/A		
3247					90% KM Chebyshev UCL	0.456			95% KM Chebyshev UCL	0.618		
3248					97.5% KM Chebyshev UCL	0.844			99% KM Chebyshev UCL	1.288		
3249												
3250	**Gamma GOF Tests on Detected Observations Only**											
3251	**Not Enough Data to Perform GOF Test**											
3252												
3253	**Gamma Statistics on Detected Data Only**											
3254					k hat (MLE)	0.478			k star (bias corrected MLE)	N/A		
3255					Theta hat (MLE)	0.777			Theta star (bias corrected MLE)	N/A		
3256					nu hat (MLE)	1.912			nu star (bias corrected)	N/A		
3257					Mean (detects)	0.372						
3258												
3259	**Estimates of Gamma Parameters using KM Estimates**											
3260					Mean (KM)	0.0966			SD (KM)	0.239		
3261					Variance (KM)	0.0573			SE of Mean (KM)	0.12		

3262					k hat (KM)	0.163					k star (KM)	0.185
3263					nu hat (KM)	2.606					nu star (KM)	2.962
3264					theta hat (KM)	0.593					theta star (KM)	0.522
3265					80% gamma percentile (KM)	0.122					90% gamma percentile (KM)	0.292
3266					95% gamma percentile (KM)	0.508					99% gamma percentile (KM)	1.11
3267												
3268	**Gamma Kaplan-Meier (KM) Statistics**											
3269											Adjusted Level of Significance (β)	0.0195
3270					Approximate Chi Square Value (2.96, α)	0.361					Adjusted Chi Square Value (2.96, β)	0.208
3271					95% KM Approximate Gamma UCL	0.792					95% KM Adjusted Gamma UCL	1.379
3272												
3273	**Lognormal GOF Test on Detected Observations Only**											
3274	**Not Enough Data to Perform GOF Test**											
3275												
3276	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3277					Mean in Original Scale	0.0929					Mean in Log Scale	-13.56
3278					SD in Original Scale	0.257					SD in Log Scale	8.517
3279					95% t UCL (assumes normality of ROS data)	0.265					95% Percentile Bootstrap UCL	0.274
3280					95% BCA Bootstrap UCL	0.365					95% Bootstrap t UCL	1783
3281					95% H-UCL (Log ROS)	1.166E+45						
3282												
3283	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3284					KM Mean (logged)	-4.556					KM Geo Mean	0.0105
3285					KM SD (logged)	1.633					95% Critical H Value (KM-Log)	5.107
3286					KM Standard Error of Mean (logged)	0.817					95% H-UCL (KM -Log)	0.933
3287					KM SD (logged)	1.633					95% Critical H Value (KM-Log)	5.107
3288					KM Standard Error of Mean (logged)	0.817						
3289												
3290	**DL/2 Statistics**											
3291	**DL/2 Normal**										**DL/2 Log-Transformed**	
3292					Mean in Original Scale	0.0948					Mean in Log Scale	-5.076
3293					SD in Original Scale	0.257					SD in Log Scale	2.008
3294					95% t UCL (Assumes normality)	0.267					95% H-Stat UCL	5.034
3295	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3296												
3297	**Nonparametric Distribution Free UCL Statistics**											
3298	**Data do not follow a Discernible Distribution**											
3299												
3300	**Suggested UCL to Use**											
3301					95% KM (t) UCL	0.323						
3302												
3303	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3304	**Please verify the data were collected from random locations.**											
3305	**If the data were collected using judgmental or other non-random methods,**											
3306	**then contact a statistician to correctly calculate UCLs.**											
3307												
3308	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3309	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3310	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3311												
3312	**Accessible_PFOA_SA07**											
3313												
3314	**General Statistics**											
3315					Total Number of Observations	47					Number of Distinct Observations	1

3316					Number of Detects	0					Number of Non-Detects	47
3317					Number of Distinct Detects	0					Number of Distinct Non-Detects	1
3318												
3319	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
3320	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
3321	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
3322												
3323	**The data set for variable Accessible_PFOA_SA07 was not processed!**											
3324												
3325												
3326	**Accessible_PFOA_SA08**											
3327												
3328	**General Statistics**											
3329					Total Number of Observations	46					Number of Distinct Observations	7
3330					Number of Detects	6					Number of Non-Detects	40
3331					Number of Distinct Detects	6					Number of Distinct Non-Detects	1
3332					Minimum Detect	0.006					Minimum Non-Detect	0.005
3333					Maximum Detect	0.011					Maximum Non-Detect	0.005
3334					Variance Detects	4.1750E-6					Percent Non-Detects	86.96%
3335					Mean Detects	0.00795					SD Detects	0.00204
3336					Median Detects	0.0071					CV Detects	0.257
3337					Skewness Detects	0.888					Kurtosis Detects	-1.262
3338					Mean of Logged Detects	-4.86					SD of Logged Detects	0.245
3339												
3340	**Normal GOF Test on Detects Only**											
3341					Shapiro Wilk Test Statistic	0.851	**Shapiro Wilk GOF Test**					
3342					1% Shapiro Wilk Critical Value	0.713	Detected Data appear Normal at 1% Significance Level					
3343					Lilliefors Test Statistic	0.31	**Lilliefors GOF Test**					
3344					1% Lilliefors Critical Value	0.373	Detected Data appear Normal at 1% Significance Level					
3345	**Detected Data appear Normal at 1% Significance Level**											
3346	**Note GOF tests may be unreliable for small sample sizes**											
3347												
3348	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3349					KM Mean	0.00538					KM Standard Error of Mean	1.9388E-4
3350					90KM SD	0.0012					95% KM (BCA) UCL	0.00573
3351					95% KM (t) UCL	0.00571					95% KM (Percentile Bootstrap) UCL	0.0057
3352					95% KM (z) UCL	0.0057					95% KM Bootstrap t UCL	0.0058
3353					90% KM Chebyshev UCL	0.00597					95% KM Chebyshev UCL	0.00623
3354					97.5% KM Chebyshev UCL	0.0066					99% KM Chebyshev UCL	0.00731
3355												
3356	**Gamma GOF Tests on Detected Observations Only**											
3357					A-D Test Statistic	0.508	**Anderson-Darling GOF Test**					
3358					5% A-D Critical Value	0.697	Detected data appear Gamma Distributed at 5% Significance Level					
3359					K-S Test Statistic	0.305	**Kolmogorov-Smirnov GOF**					
3360					5% K-S Critical Value	0.332	Detected data appear Gamma Distributed at 5% Significance Level					
3361	**Detected data appear Gamma Distributed at 5% Significance Level**											
3362	**Note GOF tests may be unreliable for small sample sizes**											
3363												
3364	**Gamma Statistics on Detected Data Only**											
3365					k hat (MLE)	19.52					k star (bias corrected MLE)	9.871
3366					Theta hat (MLE)	4.0727E-4					Theta star (bias corrected MLE)	8.0537E-4
3367					nu hat (MLE)	234.2					nu star (bias corrected)	118.5
3368					Mean (detects)	0.00795						
3369												

	A	B	C	D	E	F	G	H	I	J	K	L
3370	**Gamma ROS Statistics using Imputed Non-Detects**											
3371	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3372	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3373	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3374	This is especially true when the sample size is small.											
3375	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3376					Minimum	0.006				Mean	0.00973	
3377					Maximum	0.011				Median	0.01	
3378					SD	9.7526E-4				CV	0.1	
3379					k hat (MLE)	80.94				k star (bias corrected MLE)	75.68	
3380					Theta hat (MLE)	1.2024E-4				Theta star (bias corrected MLE)	1.2860E-4	
3381					nu hat (MLE)	7447				nu star (bias corrected)	6962	
3382					Adjusted Level of Significance (β)	0.0448						
3383					Approximate Chi Square Value (N/A, α)	6770				Adjusted Chi Square Value (N/A, β)	6763	
3384					95% Gamma Approximate UCL	0.01				95% Gamma Adjusted UCL	0.01	
3385												
3386	**Estimates of Gamma Parameters using KM Estimates**											
3387					Mean (KM)	0.00538				SD (KM)	0.0012	
3388					Variance (KM)	1.4409E-6				SE of Mean (KM)	1.9388E-4	
3389					k hat (KM)	20.12				k star (KM)	18.83	
3390					nu hat (KM)	1851				nu star (KM)	1732	
3391					theta hat (KM)	2.6758E-4				theta star (KM)	2.8603E-4	
3392					80% gamma percentile (KM)	0.00639				90% gamma percentile (KM)	0.00702	
3393					95% gamma percentile (KM)	0.00758				99% gamma percentile (KM)	0.00868	
3394												
3395	**Gamma Kaplan-Meier (KM) Statistics**											
3396					Approximate Chi Square Value (N/A, α)	1636				Adjusted Chi Square Value (N/A, β)	1633	
3397					95% KM Approximate Gamma UCL	0.0057				95% KM Adjusted Gamma UCL	0.00571	
3398												
3399	**Lognormal GOF Test on Detected Observations Only**											
3400					Shapiro Wilk Test Statistic	0.878				**Shapiro Wilk GOF Test**		
3401					10% Shapiro Wilk Critical Value	0.826				Detected Data appear Lognormal at 10% Significance Level		
3402					Lilliefors Test Statistic	0.284				**Lilliefors GOF Test**		
3403					10% Lilliefors Critical Value	0.298				Detected Data appear Lognormal at 10% Significance Level		
3404	**Detected Data appear Lognormal at 10% Significance Level**											
3405	**Note GOF tests may be unreliable for small sample sizes**											
3406												
3407	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3408					Mean in Original Scale	0.00309				Mean in Log Scale	-6.024	
3409					SD in Original Scale	0.00233				SD in Log Scale	0.707	
3410					95% t UCL (assumes normality of ROS data)	0.00366				95% Percentile Bootstrap UCL	0.00366	
3411					95% BCA Bootstrap UCL	0.00372				95% Bootstrap t UCL	0.00377	
3412					95% H-UCL (Log ROS)	0.00385						
3413												
3414	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3415					KM Mean (logged)	-5.241				KM Geo Mean	0.00529	
3416					KM SD (logged)	0.168				95% Critical H Value (KM-Log)	1.755	
3417					KM Standard Error of Mean (logged)	0.0272				95% H-UCL (KM -Log)	0.00561	
3418					KM SD (logged)	0.168				95% Critical H Value (KM-Log)	1.755	
3419					KM Standard Error of Mean (logged)	0.0272						
3420												
3421	**DL/2 Statistics**											
3422	**DL/2 Normal**						**DL/2 Log-Transformed**					
3423					Mean in Original Scale	0.00321				Mean in Log Scale	-5.844	

	A	B	C	D	E	F	G	H	I	J	K	L
3424					SD in Original Scale	0.00198					SD in Log Scale	0.394
3425					95% t UCL (Assumes normality)	0.0037					95% H-Stat UCL	0.00348
3426	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3427												
3428	**Nonparametric Distribution Free UCL Statistics**											
3429	**Detected Data appear Normal Distributed at 1% Significance Level**											
3430												
3431	**Suggested UCL to Use**											
3432					95% KM (t) UCL	0.00571						
3433												
3434	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3435	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3436	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3437												
3438	**Accessible_PFOA_SA10**											
3439												
3440	**General Statistics**											
3441					Total Number of Observations	9					Number of Distinct Observations	1
3442					Number of Detects	0					Number of Non-Detects	9
3443					Number of Distinct Detects	0					Number of Distinct Non-Detects	1
3444												
3445	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
3446	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
3447	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
3448												
3449	**The data set for variable Accessible_PFOA_SA10 was not processed!**											
3450												
3451												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 25/11/2025 12:40:27 PM
From File	WorkSheet_h.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

AllD_PFOS+PFHxS_On-base Other

General Statistics

Total Number of Observations	194	Number of Distinct Observations	98
Number of Detects	127	Number of Non-Detects	67
Number of Distinct Detects	96	Number of Distinct Non-Detects	2
Minimum Detect	0.0014	Minimum Non-Detect	2.0000E-4
Maximum Detect	4.34	Maximum Non-Detect	0.005
Variance Detects	0.198	Percent Non-Detects	34.54%
Mean Detects	0.125	SD Detects	0.445
Median Detects	0.0181	CV Detects	3.567
Skewness Detects	7.497	Kurtosis Detects	65.97
Mean of Logged Detects	-3.625	SD of Logged Detects	1.451

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.297	**Normal GOF Test on Detected Observations Only**
1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.391	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.0913	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0825	KM Standard Error of Mean	0.0262
90KM SD	0.363	95% KM (BCA) UCL	0.13
95% KM (t) UCL	0.126	95% KM (Percentile Bootstrap) UCL	0.127
95% KM (z) UCL	0.126	95% KM Bootstrap t UCL	0.179
90% KM Chebyshev UCL	0.161	95% KM Chebyshev UCL	0.197
97.5% KM Chebyshev UCL	0.246	99% KM Chebyshev UCL	0.343

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	13.17	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.838	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.249	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0881	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.423	k star (bias corrected MLE)	0.418
Theta hat (MLE)	0.295	Theta star (bias corrected MLE)	0.299
nu hat (MLE)	107.4	nu star (bias corrected)	106.1
Mean (detects)	0.125		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

170	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
171	This is especially true when the sample size is small.											
172	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
173					Minimum	0.0014				Mean		0.0851
174					Maximum	4.34				Median		0.01
175					SD	0.364				CV		4.272
176					k hat (MLE)	0.433				k star (bias corrected MLE)		0.43
177					Theta hat (MLE)	0.196				Theta star (bias corrected MLE)		0.198
178					nu hat (MLE)	168.1				nu star (bias corrected)		166.8
179					Adjusted Level of Significance (β)	0.0488						
180					Approximate Chi Square Value (166.83, α)	138				Adjusted Chi Square Value (166.83, β)		137.8
181					95% Gamma Approximate UCL	0.103				95% Gamma Adjusted UCL		0.103
182												
183	**Estimates of Gamma Parameters using KM Estimates**											
184					Mean (KM)	0.0825				SD (KM)		0.363
185					Variance (KM)	0.132				SE of Mean (KM)		0.0262
186					k hat (KM)	0.0515				k star (KM)		0.0542
187					nu hat (KM)	19.99				nu star (KM)		21.01
188					theta hat (KM)	1.601				theta star (KM)		1.523
189					80% gamma percentile (KM)	0.0146				90% gamma percentile (KM)		0.139
190					95% gamma percentile (KM)	0.45				99% gamma percentile (KM)		1.737
191												
192	**Gamma Kaplan-Meier (KM) Statistics**											
193					Approximate Chi Square Value (21.01, α)	11.6				Adjusted Chi Square Value (21.01, β)		11.55
194					95% KM Approximate Gamma UCL	0.149				95% KM Adjusted Gamma UCL		0.15
195												
196	**Lognormal GOF Test on Detected Observations Only**											
197					Shapiro Wilk Approximate Test Statistic	0.926				**Shapiro Wilk GOF Test**		
198					10% Shapiro Wilk P Value	1.1297E-7				Detected Data Not Lognormal at 10% Significance Level		
199					Lilliefors Test Statistic	0.117				**Lilliefors GOF Test**		
200					10% Lilliefors Critical Value	0.0723				Detected Data Not Lognormal at 10% Significance Level		
201	**Detected Data Not Lognormal at 10% Significance Level**											
202												
203	**Lognormal ROS Statistics Using Imputed Non-Detects**											
204					Mean in Original Scale	0.0822				Mean in Log Scale		-4.738
205					SD in Original Scale	0.364				SD in Log Scale		2.036
206					95% t UCL (assumes normality of ROS data)	0.125				95% Percentile Bootstrap UCL		0.129
207					95% BCA Bootstrap UCL	0.144				95% Bootstrap t UCL		0.169
208					95% H-UCL (Log ROS)	0.112						
209												
210	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
211					KM Mean (logged)	-4.64				KM Geo Mean		0.00966
212					KM SD (logged)	1.96				95% Critical H Value (KM-Log)		3.175
213					KM Standard Error of Mean (logged)	0.207				95% H-UCL (KM -Log)		0.103
214					KM SD (logged)	1.96				95% Critical H Value (KM-Log)		3.175
215					KM Standard Error of Mean (logged)	0.207						
216												
217	**DL/2 Statistics**											
218	**DL/2 Normal**									**DL/2 Log-Transformed**		
219					Mean in Original Scale	0.0825				Mean in Log Scale		-4.475
220					SD in Original Scale	0.364				SD in Log Scale		1.69
221					95% t UCL (Assumes normality)	0.126				95% H-Stat UCL		0.0674
222	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
223												

	A	B	C	D	E	F	G	H	I	J	K	L
224	**Nonparametric Distribution Free UCL Statistics**											
225	**Data do not follow a Discernible Distribution**											
226												
227	**Suggested UCL to Use**											
228	95% KM (t) UCL					0.126						
229												
230	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
231	**Please verify the data were collected from random locations.**											
232	**If the data were collected using judgmental or other non-random methods,**											
233	**then contact a statistician to correctly calculate UCLs.**											
234												
235	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
236	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
237	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
238												
239	**AllD_PFOS+PFHxS_SA01**											
240												
241	**General Statistics**											
242	Total Number of Observations					156			Number of Distinct Observations			117
243	Number of Detects					142			Number of Non-Detects			14
244	Number of Distinct Detects					116			Number of Distinct Non-Detects			1
245	Minimum Detect					0.0054			Minimum Non-Detect			0.005
246	Maximum Detect					2.5			Maximum Non-Detect			0.005
247	Variance Detects					0.132			Percent Non-Detects			8.974%
248	Mean Detects					0.195			SD Detects			0.364
249	Median Detects					0.0555			CV Detects			1.868
250	Skewness Detects					3.569			Kurtosis Detects			15.57
251	Mean of Logged Detects					-2.778			SD of Logged Detects			1.502
252												
253	**Normal GOF Test on Detects Only**											
254	Shapiro Wilk Test Statistic					0.561			**Normal GOF Test on Detected Observations Only**			
255	1% Shapiro Wilk P Value					0			Detected Data Not Normal at 1% Significance Level			
256	Lilliefors Test Statistic					0.303			**Lilliefors GOF Test**			
257	1% Lilliefors Critical Value					0.0864			Detected Data Not Normal at 1% Significance Level			
258	**Detected Data Not Normal at 1% Significance Level**											
259												
260	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
261	KM Mean					0.178			KM Standard Error of Mean			0.0281
262	90KM SD					0.35			95% KM (BCA) UCL			0.226
263	95% KM (t) UCL					0.224			95% KM (Percentile Bootstrap) UCL			0.225
264	95% KM (z) UCL					0.224			95% KM Bootstrap t UCL			0.233
265	90% KM Chebyshev UCL					0.262			95% KM Chebyshev UCL			0.3
266	97.5% KM Chebyshev UCL					0.353			99% KM Chebyshev UCL			0.458
267												
268	**Gamma GOF Tests on Detected Observations Only**											
269	A-D Test Statistic					5.771			**Anderson-Darling GOF Test**			
270	5% A-D Critical Value					0.815			Detected Data Not Gamma Distributed at 5% Significance Level			
271	K-S Test Statistic					0.164			**Kolmogorov-Smirnov GOF**			
272	5% K-S Critical Value					0.0829			Detected Data Not Gamma Distributed at 5% Significance Level			
273	**Detected Data Not Gamma Distributed at 5% Significance Level**											
274												
275	**Gamma Statistics on Detected Data Only**											
276	k hat (MLE)					0.548			k star (bias corrected MLE)			0.541
277	Theta hat (MLE)					0.355			Theta star (bias corrected MLE)			0.36

278					nu hat (MLE)	155.7				nu star (bias corrected)		153.7
279					Mean (detects)	0.195						
280												
281					**Gamma ROS Statistics using Imputed Non-Detects**							
282					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
283					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
284					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
285					This is especially true when the sample size is small.							
286					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
287					Minimum	0.0054				Mean		0.178
288					Maximum	2.5				Median		0.0403
289					SD	0.351				CV		1.97
290					k hat (MLE)	0.519				k star (bias corrected MLE)		0.513
291					Theta hat (MLE)	0.343				Theta star (bias corrected MLE)		0.347
292					nu hat (MLE)	161.9				nu star (bias corrected)		160.1
293					Adjusted Level of Significance (β)	0.0485						
294					Approximate Chi Square Value (160.09, α)	131.8				Adjusted Chi Square Value (160.09, β)		131.6
295					95% Gamma Approximate UCL	0.216				95% Gamma Adjusted UCL		0.217
296												
297					**Estimates of Gamma Parameters using KM Estimates**							
298					Mean (KM)	0.178				SD (KM)		0.35
299					Variance (KM)	0.123				SE of Mean (KM)		0.0281
300					k hat (KM)	0.258				k star (KM)		0.257
301					nu hat (KM)	80.41				nu star (KM)		80.19
302					theta hat (KM)	0.69				theta star (KM)		0.692
303					80% gamma percentile (KM)	0.261				90% gamma percentile (KM)		0.532
304					95% gamma percentile (KM)	0.853				99% gamma percentile (KM)		1.704
305												
306					**Gamma Kaplan-Meier (KM) Statistics**							
307					Approximate Chi Square Value (80.19, α)	60.56				Adjusted Chi Square Value (80.19, β)		60.4
308					95% KM Approximate Gamma UCL	0.235				95% KM Adjusted Gamma UCL		0.236
309												
310					**Lognormal GOF Test on Detected Observations Only**							
311					Shapiro Wilk Approximate Test Statistic	0.947				**Shapiro Wilk GOF Test**		
312					10% Shapiro Wilk P Value	4.4590E-5				Detected Data Not Lognormal at 10% Significance Level		
313					Lilliefors Test Statistic	0.0721				**Lilliefors GOF Test**		
314					10% Lilliefors Critical Value	0.0684				Detected Data Not Lognormal at 10% Significance Level		
315					**Detected Data Not Lognormal at 10% Significance Level**							
316												
317					**Lognormal ROS Statistics Using Imputed Non-Detects**							
318					Mean in Original Scale	0.177				Mean in Log Scale		-3.091
319					SD in Original Scale	0.351				SD in Log Scale		1.755
320					95% t UCL (assumes normality of ROS data)	0.224				95% Percentile Bootstrap UCL		0.226
321					95% BCA Bootstrap UCL	0.231				95% Bootstrap t UCL		0.236
322					95% H-UCL (Log ROS)	0.324						
323												
324					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
325					KM Mean (logged)	-3.004				KM Geo Mean		0.0496
326					KM SD (logged)	1.599				95% Critical H Value (KM-Log)		2.83
327					KM Standard Error of Mean (logged)	0.128				95% H-UCL (KM -Log)		0.256
328					KM SD (logged)	1.599				95% Critical H Value (KM-Log)		2.83
329					KM Standard Error of Mean (logged)	0.128						
330												
331					**DL/2 Statistics**							

332	**DL/2 Normal**						**DL/2 Log-Transformed**					
333					Mean in Original Scale	0.178					Mean in Log Scale	-3.067
334					SD in Original Scale	0.351					SD in Log Scale	1.703
335					95% t UCL (Assumes normality)	0.224					95% H-Stat UCL	0.297
336	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
337												
338	**Nonparametric Distribution Free UCL Statistics**											
339	**Data do not follow a Discernible Distribution**											
340												
341	**Suggested UCL to Use**											
342					95% KM (t) UCL	0.224						
343												
344	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
345	**Please verify the data were collected from random locations.**											
346	**If the data were collected using judgmental or other non-random methods,**											
347	**then contact a statistician to correctly calculate UCLs.**											
348												
349	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
350	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
351	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
352												
353	**AllD_PFOS+PFHxS_SA02**											
354												
355	**General Statistics**											
356					Total Number of Observations	118					Number of Distinct Observations	102
357					Number of Detects	107					Number of Non-Detects	11
358					Number of Distinct Detects	101					Number of Distinct Non-Detects	1
359					Minimum Detect	0.0057					Minimum Non-Detect	0.005
360					Maximum Detect	4.268					Maximum Non-Detect	0.005
361					Variance Detects	0.556					Percent Non-Detects	9.322%
362					Mean Detects	0.427					SD Detects	0.745
363					Median Detects	0.118					CV Detects	1.745
364					Skewness Detects	2.94					Kurtosis Detects	9.611
365					Mean of Logged Detects	-2.102					SD of Logged Detects	1.695
366												
367	**Normal GOF Test on Detects Only**											
368					Shapiro Wilk Test Statistic	0.604	**Normal GOF Test on Detected Observations Only**					
369					1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level					
370					Lilliefors Test Statistic	0.286	**Lilliefors GOF Test**					
371					1% Lilliefors Critical Value	0.0994	Detected Data Not Normal at 1% Significance Level					
372	**Detected Data Not Normal at 1% Significance Level**											
373												
374	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
375					KM Mean	0.388					KM Standard Error of Mean	0.0663
376					90KM SD	0.717					95% KM (BCA) UCL	0.499
377					95% KM (t) UCL	0.498					95% KM (Percentile Bootstrap) UCL	0.501
378					95% KM (z) UCL	0.497					95% KM Bootstrap t UCL	0.53
379					90% KM Chebyshev UCL	0.587					95% KM Chebyshev UCL	0.677
380					97.5% KM Chebyshev UCL	0.802					99% KM Chebyshev UCL	1.048
381												
382	**Gamma GOF Tests on Detected Observations Only**											
383					A-D Test Statistic	2.621	**Anderson-Darling GOF Test**					
384					5% A-D Critical Value	0.818	Detected Data Not Gamma Distributed at 5% Significance Level					
385					K-S Test Statistic	0.139	**Kolmogorov-Smirnov GOF**					

386	5% K-S Critical Value					0.0927	Detected Data Not Gamma Distributed at 5% Significance Level					
387	**Detected Data Not Gamma Distributed at 5% Significance Level**											
388												
389	**Gamma Statistics on Detected Data Only**											
390	k hat (MLE)					0.507	k star (bias corrected MLE)					0.499
391	Theta hat (MLE)					0.843	Theta star (bias corrected MLE)					0.857
392	nu hat (MLE)					108.4	nu star (bias corrected)					106.7
393	Mean (detects)					0.427						
394												
395	**Gamma ROS Statistics using Imputed Non-Detects**											
396	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
397	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
398	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
399	This is especially true when the sample size is small.											
400	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
401	Minimum					0.0057	Mean					0.388
402	Maximum					4.268	Median					0.0883
403	SD					0.72	CV					1.854
404	k hat (MLE)					0.463	k star (bias corrected MLE)					0.457
405	Theta hat (MLE)					0.839	Theta star (bias corrected MLE)					0.85
406	nu hat (MLE)					109.2	nu star (bias corrected)					107.8
407	Adjusted Level of Significance (β)					0.048						
408	Approximate Chi Square Value (107.76, α)					84.8	Adjusted Chi Square Value (107.76, β)					84.55
409	95% Gamma Approximate UCL					0.493	95% Gamma Adjusted UCL					0.495
410												
411	**Estimates of Gamma Parameters using KM Estimates**											
412	Mean (KM)					0.388	SD (KM)					0.717
413	Variance (KM)					0.514	SE of Mean (KM)					0.0663
414	k hat (KM)					0.292	k star (KM)					0.291
415	nu hat (KM)					69.01	nu star (KM)					68.59
416	theta hat (KM)					1.326	theta star (KM)					1.334
417	80% gamma percentile (KM)					0.59	90% gamma percentile (KM)					1.148
418	95% gamma percentile (KM)					1.792	99% gamma percentile (KM)					3.472
419												
420	**Gamma Kaplan-Meier (KM) Statistics**											
421	Approximate Chi Square Value (68.59, α)					50.53	Adjusted Chi Square Value (68.59, β)					50.34
422	95% KM Approximate Gamma UCL					0.526	95% KM Adjusted Gamma UCL					0.528
423												
424	**Lognormal GOF Test on Detected Observations Only**											
425	Shapiro Wilk Approximate Test Statistic					0.958	**Shapiro Wilk GOF Test**					
426	10% Shapiro Wilk P Value					0.0103	Detected Data Not Lognormal at 10% Significance Level					
427	Lilliefors Test Statistic					0.0588	**Lilliefors GOF Test**					
428	10% Lilliefors Critical Value					0.0786	Detected Data appear Lognormal at 10% Significance Level					
429	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
430												
431	**Lognormal ROS Statistics Using Imputed Non-Detects**											
432	Mean in Original Scale					0.388	Mean in Log Scale					-2.468
433	SD in Original Scale					0.72	SD in Log Scale					1.987
434	95% t UCL (assumes normality of ROS data)					0.497	95% Percentile Bootstrap UCL					0.498
435	95% BCA Bootstrap UCL					0.512	95% Bootstrap t UCL					0.525
436	95% H-UCL (Log ROS)					1.124						
437												
438	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
439	KM Mean (logged)					-2.4	KM Geo Mean					0.0907

440					KM SD (logged)	1.856				95% Critical H Value (KM-Log)		3.157
441				KM Standard Error of Mean (logged)		0.172				95% H-UCL (KM -Log)		0.872
442					KM SD (logged)	1.856				95% Critical H Value (KM-Log)		3.157
443				KM Standard Error of Mean (logged)		0.172						
444												
445						DL/2 Statistics						
446					DL/2 Normal					DL/2 Log-Transformed		
447					Mean in Original Scale	0.388				Mean in Log Scale		-2.465
448					SD in Original Scale	0.72				SD in Log Scale		1.973
449				95% t UCL (Assumes normality)		0.497				95% H-Stat UCL		1.086
450					DL/2 is not a recommended method, provided for comparisons and historical reasons							
451												
452					Nonparametric Distribution Free UCL Statistics							
453					Detected Data appear Approximate Lognormal Distributed at 10% Significance Level							
454												
455					Suggested UCL to Use							
456					KM H-UCL	0.872						
457												
458					The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.							
459					Please verify the data were collected from random locations.							
460					If the data were collected using judgmental or other non-random methods,							
461					then contact a statistician to correctly calculate UCLs.							
462												
463					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
464					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
465					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
466												
467	AllD_PFOS+PFHxS_SA03											
468												
469						General Statistics						
470					Total Number of Observations	37				Number of Distinct Observations		3
471					Number of Detects	2				Number of Non-Detects		35
472					Number of Distinct Detects	2				Number of Distinct Non-Detects		1
473					Minimum Detect	0.0095				Minimum Non-Detect		0.005
474					Maximum Detect	0.01				Maximum Non-Detect		0.005
475					Variance Detects	1.2500E-7				Percent Non-Detects		94.59%
476					Mean Detects	0.00975				SD Detects		3.5355E-4
477					Median Detects	0.00975				CV Detects		0.0363
478					Skewness Detects	N/A				Kurtosis Detects		N/A
479					Mean of Logged Detects	-4.631				SD of Logged Detects		0.0363
480												
481					Warning: Data set has only 2 Detected Values.							
482					This is not enough to compute meaningful or reliable statistics and estimates.							
483												
484												
485					Normal GOF Test on Detects Only							
486					Not Enough Data to Perform GOF Test							
487												
488					Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
489					KM Mean	0.00526				KM Standard Error of Mean		2.5009E-4
490					90KM SD	0.00108				95% KM (BCA) UCL		N/A
491					95% KM (t) UCL	0.00568				95% KM (Percentile Bootstrap) UCL		N/A
492					95% KM (z) UCL	0.00567				95% KM Bootstrap t UCL		N/A
493					90% KM Chebyshev UCL	0.00601				95% KM Chebyshev UCL		0.00635

494	97.5% KM Chebyshev UCL				0.00682	99% KM Chebyshev UCL					0.00775	
495												
496	**Gamma GOF Tests on Detected Observations Only**											
497	**Not Enough Data to Perform GOF Test**											
498												
499	**Gamma Statistics on Detected Data Only**											
500	k hat (MLE)				1521	k star (bias corrected MLE)					N/A	
501	Theta hat (MLE)				6.4117E-6	Theta star (bias corrected MLE)					N/A	
502	nu hat (MLE)				6083	nu star (bias corrected)					N/A	
503	Mean (detects)				0.00975							
504												
505	**Estimates of Gamma Parameters using KM Estimates**											
506	Mean (KM)				0.00526	SD (KM)					0.00108	
507	Variance (KM)				1.1570E-6	SE of Mean (KM)					2.5009E-4	
508	k hat (KM)				23.88	k star (KM)					21.96	
509	nu hat (KM)				1767	nu star (KM)					1625	
510	theta hat (KM)				2.2011E-4	theta star (KM)					2.3933E-4	
511	80% gamma percentile (KM)				0.00617	90% gamma percentile (KM)					0.00674	
512	95% gamma percentile (KM)				0.00723	99% gamma percentile (KM)					0.00821	
513												
514	**Gamma Kaplan-Meier (KM) Statistics**											
515						Adjusted Level of Significance (β)					0.0431	
516	Approximate Chi Square Value (N/A, α)				1533	Adjusted Chi Square Value (N/A, β)					1529	
517	95% KM Approximate Gamma UCL				0.00557	95% KM Adjusted Gamma UCL					0.00559	
518												
519	**Lognormal GOF Test on Detected Observations Only**											
520	**Not Enough Data to Perform GOF Test**											
521												
522	**Lognormal ROS Statistics Using Imputed Non-Detects**											
523	Mean in Original Scale				0.00707	Mean in Log Scale					-4.965	
524	SD in Original Scale				0.00116	SD in Log Scale					0.163	
525	95% t UCL (assumes normality of ROS data)				0.00739	95% Percentile Bootstrap UCL					0.00738	
526	95% BCA Bootstrap UCL				0.00738	95% Bootstrap t UCL					0.00742	
527	95% H-UCL (Log ROS)				0.00741							
528												
529	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
530	KM Mean (logged)				-5.262	KM Geo Mean					0.00518	
531	KM SD (logged)				0.151	95% Critical H Value (KM-Log)					1.715	
532	KM Standard Error of Mean (logged)				0.0351	95% H-UCL (KM -Log)					0.00547	
533	KM SD (logged)				0.151	95% Critical H Value (KM-Log)					1.715	
534	KM Standard Error of Mean (logged)				0.0351							
535												
536	**DL/2 Statistics**											
537	**DL/2 Normal**					**DL/2 Log-Transformed**						
538	Mean in Original Scale				0.00289	Mean in Log Scale					-5.918	
539	SD in Original Scale				0.00166	SD in Log Scale					0.312	
540	95% t UCL (Assumes normality)				0.00335	95% H-Stat UCL					0.0031	
541	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
542												
543	**Nonparametric Distribution Free UCL Statistics**											
544	**Data do not follow a Discernible Distribution**											
545												
546	**Suggested UCL to Use**											
547	95% KM (t) UCL				0.00568							

	A	B	C	D	E	F	G	H	I	J	K	L
548												
549	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
550	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
551	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
552												
553	**AllD_PFOS+PFHxS_SA04**											
554												
555	**General Statistics**											
556					Total Number of Observations	51			Number of Distinct Observations		44	
557					Number of Detects	47			Number of Non-Detects		4	
558					Number of Distinct Detects	44			Number of Distinct Non-Detects		1	
559					Minimum Detect	0.005			Minimum Non-Detect		0.005	
560					Maximum Detect	206.7			Maximum Non-Detect		0.005	
561					Variance Detects	2096			Percent Non-Detects		7.843%	
562					Mean Detects	21.84			SD Detects		45.78	
563					Median Detects	0.41			CV Detects		2.096	
564					Skewness Detects	2.768			Kurtosis Detects		7.981	
565					Mean of Logged Detects	-0.373			SD of Logged Detects		3.382	
566												
567	**Normal GOF Test on Detects Only**											
568					Shapiro Wilk Test Statistic	0.555			**Shapiro Wilk GOF Test**			
569					1% Shapiro Wilk Critical Value	0.928			Detected Data Not Normal at 1% Significance Level			
570					Lilliefors Test Statistic	0.335			**Lilliefors GOF Test**			
571					1% Lilliefors Critical Value	0.15			Detected Data Not Normal at 1% Significance Level			
572	**Detected Data Not Normal at 1% Significance Level**											
573												
574	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
575					KM Mean	20.13			KM Standard Error of Mean		6.21	
576					90KM SD	43.88			95% KM (BCA) UCL		29.88	
577					95% KM (t) UCL	30.54			95% KM (Percentile Bootstrap) UCL		30.19	
578					95% KM (z) UCL	30.35			95% KM Bootstrap t UCL		37.23	
579					90% KM Chebyshev UCL	38.76			95% KM Chebyshev UCL		47.2	
580					97.5% KM Chebyshev UCL	58.91			99% KM Chebyshev UCL		81.92	
581												
582	**Gamma GOF Tests on Detected Observations Only**											
583					A-D Test Statistic	2.195			**Anderson-Darling GOF Test**			
584					5% A-D Critical Value	0.906			Detected Data Not Gamma Distributed at 5% Significance Level			
585					K-S Test Statistic	0.192			**Kolmogorov-Smirnov GOF**			
586					5% K-S Critical Value	0.143			Detected Data Not Gamma Distributed at 5% Significance Level			
587	**Detected Data Not Gamma Distributed at 5% Significance Level**											
588												
589	**Gamma Statistics on Detected Data Only**											
590					k hat (MLE)	0.211			k star (bias corrected MLE)		0.212	
591					Theta hat (MLE)	103.5			Theta star (bias corrected MLE)		103.1	
592					nu hat (MLE)	19.84			nu star (bias corrected)		19.91	
593					Mean (detects)	21.84						
594												
595	**Gamma ROS Statistics using Imputed Non-Detects**											
596	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
597	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
598	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
599	This is especially true when the sample size is small.											
600	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
601					Minimum	0.005			Mean		20.13	

602					Maximum	206.7					Median	0.238
603					SD	44.31					CV	2.201
604					k hat (MLE)	0.199					k star (bias corrected MLE)	0.2
605					Theta hat (MLE)	101.3					Theta star (bias corrected MLE)	100.6
606					nu hat (MLE)	20.27					nu star (bias corrected)	20.41
607					Adjusted Level of Significance (β)	0.0453						
608					Approximate Chi Square Value (20.41, α)	11.15					Adjusted Chi Square Value (20.41, β)	10.95
609					95% Gamma Approximate UCL	36.84					95% Gamma Adjusted UCL	37.51
610												
611					**Estimates of Gamma Parameters using KM Estimates**							
612					Mean (KM)	20.13					SD (KM)	43.88
613					Variance (KM)	1925					SE of Mean (KM)	6.21
614					k hat (KM)	0.21					k star (KM)	0.211
615					nu hat (KM)	21.47					nu star (KM)	21.54
616					theta hat (KM)	95.63					theta star (KM)	95.32
617					80% gamma percentile (KM)	27.26					90% gamma percentile (KM)	60.87
618					95% gamma percentile (KM)	102.2					99% gamma percentile (KM)	215.1
619												
620					**Gamma Kaplan-Meier (KM) Statistics**							
621					Approximate Chi Square Value (21.54, α)	11.99					Adjusted Chi Square Value (21.54, β)	11.79
622					95% KM Approximate Gamma UCL	36.15					95% KM Adjusted Gamma UCL	36.79
623												
624					**Lognormal GOF Test on Detected Observations Only**							
625					Shapiro Wilk Test Statistic	0.912					**Shapiro Wilk GOF Test**	
626					10% Shapiro Wilk Critical Value	0.954					Detected Data Not Lognormal at 10% Significance Level	
627					Lilliefors Test Statistic	0.114					**Lilliefors GOF Test**	
628					10% Lilliefors Critical Value	0.118					Detected Data appear Lognormal at 10% Significance Level	
629					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
630												
631					**Lognormal ROS Statistics Using Imputed Non-Detects**							
632					Mean in Original Scale	20.13					Mean in Log Scale	-0.989
633					SD in Original Scale	44.31					SD in Log Scale	3.89
634					95% t UCL (assumes normality of ROS data)	30.53					95% Percentile Bootstrap UCL	30.91
635					95% BCA Bootstrap UCL	32.67					95% Bootstrap t UCL	35.36
636					95% H-UCL (Log ROS)	22440						
637												
638					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
639					KM Mean (logged)	-0.76					KM Geo Mean	0.468
640					KM SD (logged)	3.474					95% Critical H Value (KM-Log)	5.643
641					KM Standard Error of Mean (logged)	0.492					95% H-UCL (KM -Log)	3129
642					KM SD (logged)	3.474					95% Critical H Value (KM-Log)	5.643
643					KM Standard Error of Mean (logged)	0.492						
644												
645					**DL/2 Statistics**							
646					**DL/2 Normal**						**DL/2 Log-Transformed**	
647					Mean in Original Scale	20.13					Mean in Log Scale	-0.814
648					SD in Original Scale	44.31					SD in Log Scale	3.585
649					95% t UCL (Assumes normality)	30.53					95% H-Stat UCL	5194
650					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
651												
652					**Nonparametric Distribution Free UCL Statistics**							
653					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**							
654												
655					**Suggested UCL to Use**							

656					KM H-UCL	3129						
657	**Warning: Recommended UCL exceeds the maximum observation**											
658												
659	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
660	**Please verify the data were collected from random locations.**											
661	**If the data were collected using judgmental or other non-random methods,**											
662	**then contact a statistician to correctly calculate UCLs.**											
663												
664	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
665	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
666	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
667												
668	**AllD_PFOS+PFHxS_SA05**											
669												
670	**General Statistics**											
671	Total Number of Observations					47	Number of Distinct Observations					44
672	Number of Detects					46	Number of Non-Detects					1
673	Number of Distinct Detects					43	Number of Distinct Non-Detects					1
674	Minimum Detect					0.0093	Minimum Non-Detect					0.005
675	Maximum Detect					17.34	Maximum Non-Detect					0.005
676	Variance Detects					8.236	Percent Non-Detects					2.128%
677	Mean Detects					0.855	SD Detects					2.87
678	Median Detects					0.139	CV Detects					3.358
679	Skewness Detects					5.07	Kurtosis Detects					26.74
680	Mean of Logged Detects					-1.885	SD of Logged Detects					1.635
681												
682	**Normal GOF Test on Detects Only**											
683	Shapiro Wilk Test Statistic					0.31	**Shapiro Wilk GOF Test**					
684	1% Shapiro Wilk Critical Value					0.927	Detected Data Not Normal at 1% Significance Level					
685	Lilliefors Test Statistic					0.384	**Lilliefors GOF Test**					
686	1% Lilliefors Critical Value					0.151	Detected Data Not Normal at 1% Significance Level					
687	**Detected Data Not Normal at 1% Significance Level**											
688												
689	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
690	KM Mean					0.837	KM Standard Error of Mean					0.415
691	90KM SD					2.811	95% KM (BCA) UCL					1.601
692	95% KM (t) UCL					1.532	95% KM (Percentile Bootstrap) UCL					1.587
693	95% KM (z) UCL					1.518	95% KM Bootstrap t UCL					5.724
694	90% KM Chebyshev UCL					2.08	95% KM Chebyshev UCL					2.643
695	97.5% KM Chebyshev UCL					3.425	99% KM Chebyshev UCL					4.961
696												
697	**Gamma GOF Tests on Detected Observations Only**											
698	A-D Test Statistic					4.069	**Anderson-Darling GOF Test**					
699	5% A-D Critical Value					0.842	Detected Data Not Gamma Distributed at 5% Significance Level					
700	K-S Test Statistic					0.222	**Kolmogorov-Smirnov GOF**					
701	5% K-S Critical Value					0.14	Detected Data Not Gamma Distributed at 5% Significance Level					
702	**Detected Data Not Gamma Distributed at 5% Significance Level**											
703												
704	**Gamma Statistics on Detected Data Only**											
705	k hat (MLE)					0.384	k star (bias corrected MLE)					0.373
706	Theta hat (MLE)					2.229	Theta star (bias corrected MLE)					2.291
707	nu hat (MLE)					35.28	nu star (bias corrected)					34.32
708	Mean (detects)					0.855						
709												

	A	B	C	D	E	F	G	H	I	J	K	L
710	**Gamma ROS Statistics using Imputed Non-Detects**											
711	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
712	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
713	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
714	This is especially true when the sample size is small.											
715	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
716					Minimum	0.0093				Mean	0.837	
717					Maximum	17.34				Median	0.138	
718					SD	2.841				CV	3.396	
719					k hat (MLE)	0.377				k star (bias corrected MLE)	0.367	
720					Theta hat (MLE)	2.221				Theta star (bias corrected MLE)	2.281	
721					nu hat (MLE)	35.41				nu star (bias corrected)	34.48	
722					Adjusted Level of Significance (β)	0.0449						
723					Approximate Chi Square Value (34.48, α)	22.05				Adjusted Chi Square Value (34.48, β)	21.73	
724					95% Gamma Approximate UCL	1.308				95% Gamma Adjusted UCL	1.327	
725												
726	**Estimates of Gamma Parameters using KM Estimates**											
727					Mean (KM)	0.837				SD (KM)	2.811	
728					Variance (KM)	7.9				SE of Mean (KM)	0.415	
729					k hat (KM)	0.0886				k star (KM)	0.0971	
730					nu hat (KM)	8.328				nu star (KM)	9.129	
731					theta hat (KM)	9.443				theta star (KM)	8.614	
732					80% gamma percentile (KM)	0.556				90% gamma percentile (KM)	2.199	
733					95% gamma percentile (KM)	4.863				99% gamma percentile (KM)	13.48	
734												
735	**Gamma Kaplan-Meier (KM) Statistics**											
736					Approximate Chi Square Value (9.13, α)	3.405				Adjusted Chi Square Value (9.13, β)	3.295	
737					95% KM Approximate Gamma UCL	2.243				95% KM Adjusted Gamma UCL	2.318	
738	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
739												
740	**Lognormal GOF Test on Detected Observations Only**											
741					Shapiro Wilk Test Statistic	0.958				**Shapiro Wilk GOF Test**		
742					10% Shapiro Wilk Critical Value	0.953				Detected Data appear Lognormal at 10% Significance Level		
743					Lilliefors Test Statistic	0.103				**Lilliefors GOF Test**		
744					10% Lilliefors Critical Value	0.119				Detected Data appear Lognormal at 10% Significance Level		
745	**Detected Data appear Lognormal at 10% Significance Level**											
746												
747	**Lognormal ROS Statistics Using Imputed Non-Detects**											
748					Mean in Original Scale	0.837				Mean in Log Scale	-1.974	
749					SD in Original Scale	2.841				SD in Log Scale	1.729	
750					95% t UCL (assumes normality of ROS data)	1.532				95% Percentile Bootstrap UCL	1.6	
751					95% BCA Bootstrap UCL	1.929				95% Bootstrap t UCL	5.647	
752					95% H-UCL (Log ROS)	1.408						
753												
754	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
755					KM Mean (logged)	-1.957				KM Geo Mean	0.141	
756					KM SD (logged)	1.674				95% Critical H Value (KM-Log)	3.147	
757					KM Standard Error of Mean (logged)	0.247				95% H-UCL (KM -Log)	1.247	
758					KM SD (logged)	1.674				95% Critical H Value (KM-Log)	3.147	
759					KM Standard Error of Mean (logged)	0.247						
760												
761	**DL/2 Statistics**											
762	**DL/2 Normal**									**DL/2 Log-Transformed**		
763					Mean in Original Scale	0.837				Mean in Log Scale	-1.972	

764					SD in Original Scale	2.841					SD in Log Scale	1.724
765					95% t UCL (Assumes normality)	1.532					95% H-Stat UCL	1.394
766	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
767												
768	**Nonparametric Distribution Free UCL Statistics**											
769	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
770												
771	**Suggested UCL to Use**											
772					KM H-UCL	1.247						
773												
774	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
775	**Please verify the data were collected from random locations.**											
776	**If the data were collected using judgmental or other non-random methods,**											
777	**then contact a statistician to correctly calculate UCLs.**											
778												
779	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
780	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
781	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
782												
783	**AllD_PFOS+PFHxS_SA06**											
784												
785	**General Statistics**											
786					Total Number of Observations	65					Number of Distinct Observations	28
787					Number of Detects	27					Number of Non-Detects	38
788					Number of Distinct Detects	27					Number of Distinct Non-Detects	1
789					Minimum Detect	0.0052					Minimum Non-Detect	0.005
790					Maximum Detect	24					Maximum Non-Detect	0.005
791					Variance Detects	23.32					Percent Non-Detects	58.46%
792					Mean Detects	1.363					SD Detects	4.829
793					Median Detects	0.0407					CV Detects	3.542
794					Skewness Detects	4.402					Kurtosis Detects	20.27
795					Mean of Logged Detects	-2.655					SD of Logged Detects	2.079
796												
797	**Normal GOF Test on Detects Only**											
798					Shapiro Wilk Test Statistic	0.318					**Shapiro Wilk GOF Test**	
799					1% Shapiro Wilk Critical Value	0.894					Detected Data Not Normal at 1% Significance Level	
800					Lilliefors Test Statistic	0.457					**Lilliefors GOF Test**	
801					1% Lilliefors Critical Value	0.194					Detected Data Not Normal at 1% Significance Level	
802	**Detected Data Not Normal at 1% Significance Level**											
803												
804	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
805					KM Mean	0.569					KM Standard Error of Mean	0.395
806					90KM SD	3.127					95% KM (BCA) UCL	1.236
807					95% KM (t) UCL	1.229					95% KM (Percentile Bootstrap) UCL	1.265
808					95% KM (z) UCL	1.219					95% KM Bootstrap t UCL	6.302
809					90% KM Chebyshev UCL	1.755					95% KM Chebyshev UCL	2.292
810					97.5% KM Chebyshev UCL	3.037					99% KM Chebyshev UCL	4.502
811												
812	**Gamma GOF Tests on Detected Observations Only**											
813					A-D Test Statistic	4.18					**Anderson-Darling GOF Test**	
814					5% A-D Critical Value	0.882					Detected Data Not Gamma Distributed at 5% Significance Level	
815					K-S Test Statistic	0.358					**Kolmogorov-Smirnov GOF**	
816					5% K-S Critical Value	0.185					Detected Data Not Gamma Distributed at 5% Significance Level	
817	**Detected Data Not Gamma Distributed at 5% Significance Level**											

818												
819	**Gamma Statistics on Detected Data Only**											
820						k hat (MLE)	0.241			k star (bias corrected MLE)	0.239	
821						Theta hat (MLE)	5.658			Theta star (bias corrected MLE)	5.708	
822						nu hat (MLE)	13.01			nu star (bias corrected)	12.9	
823						Mean (detects)	1.363					
824												
825	**Gamma ROS Statistics using Imputed Non-Detects**											
826	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
827	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
828	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
829	This is especially true when the sample size is small.											
830	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
831						Minimum	0.0052			Mean	0.572	
832						Maximum	24			Median	0.01	
833						SD	3.151			CV	5.506	
834						k hat (MLE)	0.223			k star (bias corrected MLE)	0.223	
835						Theta hat (MLE)	2.561			Theta star (bias corrected MLE)	2.562	
836						nu hat (MLE)	29.05			nu star (bias corrected)	29.04	
837						Adjusted Level of Significance (β)	0.0463					
838						Approximate Chi Square Value (29.04, α)	17.74			Adjusted Chi Square Value (29.04, β)	17.54	
839						95% Gamma Approximate UCL	0.937			95% Gamma Adjusted UCL	0.947	
840												
841	**Estimates of Gamma Parameters using KM Estimates**											
842						Mean (KM)	0.569			SD (KM)	3.127	
843						Variance (KM)	9.777			SE of Mean (KM)	0.395	
844						k hat (KM)	0.0331			k star (KM)	0.0419	
845						nu hat (KM)	4.309			nu star (KM)	5.444	
846						theta hat (KM)	17.17			theta star (KM)	13.59	
847						80% gamma percentile (KM)	0.0384			90% gamma percentile (KM)	0.668	
848						95% gamma percentile (KM)	2.801			99% gamma percentile (KM)	13.24	
849												
850	**Gamma Kaplan-Meier (KM) Statistics**											
851						Approximate Chi Square Value (5.44, α)	1.363			Adjusted Chi Square Value (5.44, β)	1.318	
852						95% KM Approximate Gamma UCL	2.274			95% KM Adjusted Gamma UCL	2.352	
853												
854	**Lognormal GOF Test on Detected Observations Only**											
855						Shapiro Wilk Test Statistic	0.884			**Shapiro Wilk GOF Test**		
856						10% Shapiro Wilk Critical Value	0.935			Detected Data Not Lognormal at 10% Significance Level		
857						Lilliefors Test Statistic	0.151			**Lilliefors GOF Test**		
858						10% Lilliefors Critical Value	0.153			Detected Data appear Lognormal at 10% Significance Level		
859	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
860												
861	**Lognormal ROS Statistics Using Imputed Non-Detects**											
862						Mean in Original Scale	0.567			Mean in Log Scale	-6.271	
863						SD in Original Scale	3.152			SD in Log Scale	3.801	
864						95% t UCL (assumes normality of ROS data)	1.219			95% Percentile Bootstrap UCL	1.291	
865						95% BCA Bootstrap UCL	1.77			95% Bootstrap t UCL	6.289	
866						95% H-UCL (Log ROS)	28.03					
867												
868	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
869						KM Mean (logged)	-4.2			KM Geo Mean	0.015	
870						KM SD (logged)	1.851			95% Critical H Value (KM-Log)	2.845	
871						KM Standard Error of Mean (logged)	0.234			95% H-UCL (KM -Log)	0.161	

872					KM SD (logged)	1.851				95% Critical H Value (KM-Log)		2.845
873				KM Standard Error of Mean (logged)		0.234						
874	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
875												
876	**DL/2 Statistics**											
877	**DL/2 Normal**						**DL/2 Log-Transformed**					
878				Mean in Original Scale		0.568				Mean in Log Scale		-4.606
879				SD in Original Scale		3.151				SD in Log Scale		2.122
880				95% t UCL (Assumes normality)		1.22				95% H-Stat UCL		0.218
881	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
882												
883	**Nonparametric Distribution Free UCL Statistics**											
884	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
885												
886	**Suggested UCL to Use**											
887				KM H-UCL		0.161						
888												
889	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
890	**Please verify the data were collected from random locations.**											
891	**If the data were collected using judgmental or other non-random methods,**											
892	**then contact a statistician to correctly calculate UCLs.**											
893												
894	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
895	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
896	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
897												
898	**AllD_PFOS+PFHxS_SA07**											
899												
900	**General Statistics**											
901				Total Number of Observations		50				Number of Distinct Observations		39
902				Number of Detects		46				Number of Non-Detects		4
903				Number of Distinct Detects		39				Number of Distinct Non-Detects		1
904				Minimum Detect		0.005				Minimum Non-Detect		0.005
905				Maximum Detect		0.456				Maximum Non-Detect		0.005
906				Variance Detects		0.00731				Percent Non-Detects		8%
907				Mean Detects		0.0502				SD Detects		0.0855
908				Median Detects		0.0185				CV Detects		1.704
909				Skewness Detects		3.353				Kurtosis Detects		12.51
910				Mean of Logged Detects		-3.765				SD of Logged Detects		1.14
911												
912	**Normal GOF Test on Detects Only**											
913				Shapiro Wilk Test Statistic		0.555	**Shapiro Wilk GOF Test**					
914				1% Shapiro Wilk Critical Value		0.927	Detected Data Not Normal at 1% Significance Level					
915				Lilliefors Test Statistic		0.308	**Lilliefors GOF Test**					
916				1% Lilliefors Critical Value		0.151	Detected Data Not Normal at 1% Significance Level					
917	**Detected Data Not Normal at 1% Significance Level**											
918												
919	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
920				KM Mean		0.0466				KM Standard Error of Mean		0.0117
921				90KM SD		0.082				95% KM (BCA) UCL		0.0704
922				95% KM (t) UCL		0.0662				95% KM (Percentile Bootstrap) UCL		0.0682
923				95% KM (z) UCL		0.0659				95% KM Bootstrap t UCL		0.0832
924				90% KM Chebyshev UCL		0.0818				95% KM Chebyshev UCL		0.0977
925				97.5% KM Chebyshev UCL		0.12				99% KM Chebyshev UCL		0.163

926												
927	**Gamma GOF Tests on Detected Observations Only**											
928	A-D Test Statistic				2.748	**Anderson-Darling GOF Test**						
929	5% A-D Critical Value				0.789	Detected Data Not Gamma Distributed at 5% Significance Level						
930	K-S Test Statistic				0.195	**Kolmogorov-Smirnov GOF**						
931	5% K-S Critical Value				0.136	Detected Data Not Gamma Distributed at 5% Significance Level						
932	**Detected Data Not Gamma Distributed at 5% Significance Level**											
933												
934	**Gamma Statistics on Detected Data Only**											
935	k hat (MLE)				0.772	k star (bias corrected MLE)						0.736
936	Theta hat (MLE)				0.065	Theta star (bias corrected MLE)						0.0682
937	nu hat (MLE)				70.99	nu star (bias corrected)						67.69
938	Mean (detects)				0.0502							
939												
940	**Gamma ROS Statistics using Imputed Non-Detects**											
941	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
942	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
943	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
944	This is especially true when the sample size is small.											
945	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
946	Minimum				0.005	Mean						0.047
947	Maximum				0.456	Median						0.015
948	SD				0.0827	CV						1.76
949	k hat (MLE)				0.771	k star (bias corrected MLE)						0.738
950	Theta hat (MLE)				0.0609	Theta star (bias corrected MLE)						0.0637
951	nu hat (MLE)				77.07	nu star (bias corrected)						73.78
952	Adjusted Level of Significance (β)				0.0452							
953	Approximate Chi Square Value (73.78, α)				55	Adjusted Chi Square Value (73.78, β)						54.52
954	95% Gamma Approximate UCL				0.063	95% Gamma Adjusted UCL						0.0636
955												
956	**Estimates of Gamma Parameters using KM Estimates**											
957	Mean (KM)				0.0466	SD (KM)						0.082
958	Variance (KM)				0.00673	SE of Mean (KM)						0.0117
959	k hat (KM)				0.322	k star (KM)						0.316
960	nu hat (KM)				32.22	nu star (KM)						31.62
961	theta hat (KM)				0.145	theta star (KM)						0.147
962	80% gamma percentile (KM)				0.0723	90% gamma percentile (KM)						0.136
963	95% gamma percentile (KM)				0.209	99% gamma percentile (KM)						0.398
964												
965	**Gamma Kaplan-Meier (KM) Statistics**											
966	Approximate Chi Square Value (31.62, α)				19.77	Adjusted Chi Square Value (31.62, β)						19.49
967	95% KM Approximate Gamma UCL				0.0745	95% KM Adjusted Gamma UCL						0.0756
968												
969	**Lognormal GOF Test on Detected Observations Only**											
970	Shapiro Wilk Test Statistic				0.92	**Shapiro Wilk GOF Test**						
971	10% Shapiro Wilk Critical Value				0.953	Detected Data Not Lognormal at 10% Significance Level						
972	Lilliefors Test Statistic				0.134	**Lilliefors GOF Test**						
973	10% Lilliefors Critical Value				0.119	Detected Data Not Lognormal at 10% Significance Level						
974	**Detected Data Not Lognormal at 10% Significance Level**											
975												
976	**Lognormal ROS Statistics Using Imputed Non-Detects**											
977	Mean in Original Scale				0.0463	Mean in Log Scale						-3.977
978	SD in Original Scale				0.083	SD in Log Scale						1.315
979	95% t UCL (assumes normality of ROS data)				0.066	95% Percentile Bootstrap UCL						0.0656

980					95% BCA Bootstrap UCL	0.0705				95% Bootstrap t UCL		0.081
981					95% H-UCL (Log ROS)	0.074						
982												
983	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
984					KM Mean (logged)	-3.888				KM Geo Mean		0.0205
985					KM SD (logged)	1.159				95% Critical H Value (KM-Log)		2.522
986					KM Standard Error of Mean (logged)	0.166				95% H-UCL (KM -Log)		0.0609
987					KM SD (logged)	1.159				95% Critical H Value (KM-Log)		2.522
988					KM Standard Error of Mean (logged)	0.166						
989												
990	**DL/2 Statistics**											
991	**DL/2 Normal**						**DL/2 Log-Transformed**					
992					Mean in Original Scale	0.0464				Mean in Log Scale		-3.943
993					SD in Original Scale	0.083				SD in Log Scale		1.252
994					95% t UCL (Assumes normality)	0.066				95% H-Stat UCL		0.0679
995	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
996												
997	**Nonparametric Distribution Free UCL Statistics**											
998	**Data do not follow a Discernible Distribution**											
999												
1000	**Suggested UCL to Use**											
1001					95% KM (t) UCL	0.0662						
1002												
1003	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1004	**Please verify the data were collected from random locations.**											
1005	**If the data were collected using judgmental or other non-random methods,**											
1006	**then contact a statistician to correctly calculate UCLs.**											
1007												
1008	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1009	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1010	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1011												
1012	**AllD_PFOS+PFHxS_SA08**											
1013												
1014	**General Statistics**											
1015					Total Number of Observations	55				Number of Distinct Observations		45
1016					Number of Detects	49				Number of Non-Detects		6
1017					Number of Distinct Detects	44				Number of Distinct Non-Detects		1
1018					Minimum Detect	0.0056				Minimum Non-Detect		0.005
1019					Maximum Detect	0.899				Maximum Non-Detect		0.005
1020					Variance Detects	0.0358				Percent Non-Detects		10.91%
1021					Mean Detects	0.127				SD Detects		0.189
1022					Median Detects	0.053				CV Detects		1.485
1023					Skewness Detects	2.469				Kurtosis Detects		6.528
1024					Mean of Logged Detects	-2.935				SD of Logged Detects		1.345
1025												
1026	**Normal GOF Test on Detects Only**											
1027					Shapiro Wilk Test Statistic	0.662	**Shapiro Wilk GOF Test**					
1028					1% Shapiro Wilk Critical Value	0.929	Detected Data Not Normal at 1% Significance Level					
1029					Lilliefors Test Statistic	0.272	**Lilliefors GOF Test**					
1030					1% Lilliefors Critical Value	0.146	Detected Data Not Normal at 1% Significance Level					
1031	**Detected Data Not Normal at 1% Significance Level**											
1032												
1033	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											

1034	KM Mean					0.114	KM Standard Error of Mean					0.0246
1035	90KM SD					0.181	95% KM (BCA) UCL					0.155
1036	95% KM (t) UCL					0.155	95% KM (Percentile Bootstrap) UCL					0.155
1037	95% KM (z) UCL					0.155	95% KM Bootstrap t UCL					0.171
1038	90% KM Chebyshev UCL					0.188	95% KM Chebyshev UCL					0.221
1039	97.5% KM Chebyshev UCL					0.268	99% KM Chebyshev UCL					0.359
1040												
1041	**Gamma GOF Tests on Detected Observations Only**											
1042	A-D Test Statistic					1.591	**Anderson-Darling GOF Test**					
1043	5% A-D Critical Value					0.798	Detected Data Not Gamma Distributed at 5% Significance Level					
1044	K-S Test Statistic					0.146	**Kolmogorov-Smirnov GOF**					
1045	5% K-S Critical Value					0.132	Detected Data Not Gamma Distributed at 5% Significance Level					
1046	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1047												
1048	**Gamma Statistics on Detected Data Only**											
1049	k hat (MLE)					0.692	k star (bias corrected MLE)					0.663
1050	Theta hat (MLE)					0.184	Theta star (bias corrected MLE)					0.192
1051	nu hat (MLE)					67.81	nu star (bias corrected)					64.99
1052	Mean (detects)					0.127						
1053												
1054	**Gamma ROS Statistics using Imputed Non-Detects**											
1055	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1056	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1057	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1058	This is especially true when the sample size is small.											
1059	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1060	Minimum					0.0056	Mean					0.115
1061	Maximum					0.899	Median					0.034
1062	SD					0.182	CV					1.59
1063	k hat (MLE)					0.643	k star (bias corrected MLE)					0.62
1064	Theta hat (MLE)					0.178	Theta star (bias corrected MLE)					0.185
1065	nu hat (MLE)					70.74	nu star (bias corrected)					68.21
1066	Adjusted Level of Significance (β)					0.0456						
1067	Approximate Chi Square Value (68.21, α)					50.2	Adjusted Chi Square Value (68.21, β)					49.79
1068	95% Gamma Approximate UCL					0.156	95% Gamma Adjusted UCL					0.157
1069												
1070	**Estimates of Gamma Parameters using KM Estimates**											
1071	Mean (KM)					0.114	SD (KM)					0.181
1072	Variance (KM)					0.0327	SE of Mean (KM)					0.0246
1073	k hat (KM)					0.398	k star (KM)					0.388
1074	nu hat (KM)					43.75	nu star (KM)					42.7
1075	theta hat (KM)					0.287	theta star (KM)					0.294
1076	80% gamma percentile (KM)					0.183	90% gamma percentile (KM)					0.324
1077	95% gamma percentile (KM)					0.479	99% gamma percentile (KM)					0.87
1078												
1079	**Gamma Kaplan-Meier (KM) Statistics**											
1080	Approximate Chi Square Value (42.70, α)					28.72	Adjusted Chi Square Value (42.70, β)					28.41
1081	95% KM Approximate Gamma UCL					0.17	95% KM Adjusted Gamma UCL					0.171
1082												
1083	**Lognormal GOF Test on Detected Observations Only**											
1084	Shapiro Wilk Test Statistic					0.957	**Shapiro Wilk GOF Test**					
1085	10% Shapiro Wilk Critical Value					0.955	Detected Data appear Lognormal at 10% Significance Level					
1086	Lilliefors Test Statistic					0.0912	**Lilliefors GOF Test**					
1087	10% Lilliefors Critical Value					0.115	Detected Data appear Lognormal at 10% Significance Level					

1088	**Detected Data appear Lognormal at 10% Significance Level**											
1089												
1090	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1091						Mean in Original Scale	0.114			Mean in Log Scale	-3.276	
1092						SD in Original Scale	0.183			SD in Log Scale	1.611	
1093						95% t UCL (assumes normality of ROS data)	0.155			95% Percentile Bootstrap UCL	0.157	
1094						95% BCA Bootstrap UCL	0.162			95% Bootstrap t UCL	0.169	
1095						95% H-UCL (Log ROS)	0.277					
1096												
1097	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1098						KM Mean (logged)	-3.193			KM Geo Mean	0.0411	
1099						KM SD (logged)	1.456			95% Critical H Value (KM-Log)	2.967	
1100						KM Standard Error of Mean (logged)	0.198			95% H-UCL (KM -Log)	0.213	
1101						KM SD (logged)	1.456			95% Critical H Value (KM-Log)	2.967	
1102						KM Standard Error of Mean (logged)	0.198					
1103												
1104	**DL/2 Statistics**											
1105	**DL/2 Normal**							**DL/2 Log-Transformed**				
1106						Mean in Original Scale	0.114			Mean in Log Scale	-3.269	
1107						SD in Original Scale	0.183			SD in Log Scale	1.591	
1108						95% t UCL (Assumes normality)	0.155			95% H-Stat UCL	0.266	
1109	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1110												
1111	**Nonparametric Distribution Free UCL Statistics**											
1112	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
1113												
1114	**Suggested UCL to Use**											
1115						KM H-UCL	0.213					
1116												
1117	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1118	**Please verify the data were collected from random locations.**											
1119	**If the data were collected using judgmental or other non-random methods,**											
1120	**then contact a statistician to correctly calculate UCLs.**											
1121												
1122	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1123	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1124	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1125												
1126	**AllD_PFOS+PFHxS_SA10**											
1127												
1128	**General Statistics**											
1129						Total Number of Observations	10			Number of Distinct Observations	4	
1130						Number of Detects	3			Number of Non-Detects	7	
1131						Number of Distinct Detects	3			Number of Distinct Non-Detects	1	
1132						Minimum Detect	0.0053			Minimum Non-Detect	0.005	
1133						Maximum Detect	0.13			Maximum Non-Detect	0.005	
1134						Variance Detects	0.00392			Percent Non-Detects	70%	
1135						Mean Detects	0.0709			SD Detects	0.0626	
1136						Median Detects	0.0775			CV Detects	0.883	
1137						Skewness Detects	-0.467			Kurtosis Detects	N/A	
1138						Mean of Logged Detects	-3.279			SD of Logged Detects	1.718	
1139												
1140	**Warning: Data set has only 3 Detected Values.**											
1141	**This is not enough to compute meaningful or reliable statistics and estimates.**											

1142												
1143												
1144	**Normal GOF Test on Detects Only**											
1145	Shapiro Wilk Test Statistic				0.992	**Shapiro Wilk GOF Test**						
1146	1% Shapiro Wilk Critical Value				0.753	Detected Data appear Normal at 1% Significance Level						
1147	Lilliefors Test Statistic				0.208	**Lilliefors GOF Test**						
1148	1% Lilliefors Critical Value				0.429	Detected Data appear Normal at 1% Significance Level						
1149	**Detected Data appear Normal at 1% Significance Level**											
1150	**Note GOF tests may be unreliable for small sample sizes**											
1151												
1152	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1153	KM Mean				0.0248	KM Standard Error of Mean						0.016
1154	90KM SD				0.0412	95% KM (BCA) UCL						N/A
1155	95% KM (t) UCL				0.054	95% KM (Percentile Bootstrap) UCL						N/A
1156	95% KM (z) UCL				0.051	95% KM Bootstrap t UCL						N/A
1157	90% KM Chebyshev UCL				0.0726	95% KM Chebyshev UCL						0.0943
1158	97.5% KM Chebyshev UCL				0.124	99% KM Chebyshev UCL						0.184
1159												
1160	**Gamma GOF Tests on Detected Observations Only**											
1161	A-D Test Statistic				0.378	**Anderson-Darling GOF Test**						
1162	5% A-D Critical Value				0.642	Detected data appear Gamma Distributed at 5% Significance Level						
1163	K-S Test Statistic				0.335	**Kolmogorov-Smirnov GOF**						
1164	5% K-S Critical Value				0.441	Detected data appear Gamma Distributed at 5% Significance Level						
1165	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1166												
1167	**Gamma Statistics on Detected Data Only**											
1168	k hat (MLE)				0.921	k star (bias corrected MLE)						N/A
1169	Theta hat (MLE)				0.077	Theta star (bias corrected MLE)						N/A
1170	nu hat (MLE)				5.524	nu star (bias corrected)						N/A
1171	Mean (detects)				0.0709							
1172												
1173	**Gamma ROS Statistics using Imputed Non-Detects**											
1174	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1175	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1176	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1177	This is especially true when the sample size is small.											
1178	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1179	Minimum				0.0053	Mean						0.0283
1180	Maximum				0.13	Median						0.01
1181	SD				0.0417	CV						1.474
1182	k hat (MLE)				0.91	k star (bias corrected MLE)						0.703
1183	Theta hat (MLE)				0.0311	Theta star (bias corrected MLE)						0.0402
1184	nu hat (MLE)				18.19	nu star (bias corrected)						14.07
1185	Adjusted Level of Significance (β)				0.0267							
1186	Approximate Chi Square Value (14.07, α)				6.619	Adjusted Chi Square Value (14.07, β)						5.754
1187	95% Gamma Approximate UCL				0.0601	95% Gamma Adjusted UCL						N/A
1188												
1189	**Estimates of Gamma Parameters using KM Estimates**											
1190	Mean (KM)				0.0248	SD (KM)						0.0412
1191	Variance (KM)				0.0017	SE of Mean (KM)						0.016
1192	k hat (KM)				0.362	k star (KM)						0.32
1193	nu hat (KM)				7.237	nu star (KM)						6.399
1194	theta hat (KM)				0.0685	theta star (KM)						0.0774
1195	80% gamma percentile (KM)				0.0386	90% gamma percentile (KM)						0.0725

1196	95% gamma percentile (KM)					0.111	99% gamma percentile (KM)					0.21
1197												
1198	**Gamma Kaplan-Meier (KM) Statistics**											
1199	Approximate Chi Square Value (6.40, α)					1.847	Adjusted Chi Square Value (6.40, β)					1.455
1200	95% KM Approximate Gamma UCL					0.0858	95% KM Adjusted Gamma UCL					0.109
1201												
1202	**Lognormal GOF Test on Detected Observations Only**											
1203	Shapiro Wilk Test Statistic					0.868	**Shapiro Wilk GOF Test**					
1204	10% Shapiro Wilk Critical Value					0.789	Detected Data appear Lognormal at 10% Significance Level					
1205	Lilliefors Test Statistic					0.329	**Lilliefors GOF Test**					
1206	10% Lilliefors Critical Value					0.389	Detected Data appear Lognormal at 10% Significance Level					
1207	**Detected Data appear Lognormal at 10% Significance Level**											
1208	**Note GOF tests may be unreliable for small sample sizes**											
1209												
1210	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1211	Mean in Original Scale					0.0215	Mean in Log Scale					-8.015
1212	SD in Original Scale					0.0451	SD in Log Scale					3.96
1213	95% t UCL (assumes normality of ROS data)					0.0476	95% Percentile Bootstrap UCL					0.0468
1214	95% BCA Bootstrap UCL					0.0546	95% Bootstrap t UCL					0.592
1215	95% H-UCL (Log ROS)					658672						
1216												
1217	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1218	KM Mean (logged)					-4.693	KM Geo Mean					0.00916
1219	KM SD (logged)					1.203	95% Critical H Value (KM-Log)					3.534
1220	KM Standard Error of Mean (logged)					0.466	95% H-UCL (KM -Log)					0.0778
1221	KM SD (logged)					1.203	95% Critical H Value (KM-Log)					3.534
1222	KM Standard Error of Mean (logged)					0.466						
1223												
1224	**DL/2 Statistics**											
1225	**DL/2 Normal**						**DL/2 Log-Transformed**					
1226	Mean in Original Scale					0.023	Mean in Log Scale					-5.178
1227	SD in Original Scale					0.0443	SD in Log Scale					1.54
1228	95% t UCL (Assumes normality)					0.0487	95% H-Stat UCL					0.168
1229	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1230												
1231	**Nonparametric Distribution Free UCL Statistics**											
1232	**Detected Data appear Normal Distributed at 1% Significance Level**											
1233												
1234	**Suggested UCL to Use**											
1235	95% KM (t) UCL					0.054						
1236												
1237	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1238	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1239	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1240												
1356	**AllD_PFOS_On-base Other**											
1357												
1358	**General Statistics**											
1359	Total Number of Observations					194	Number of Distinct Observations					87
1360	Number of Detects					117	Number of Non-Detects					77
1361	Number of Distinct Detects					85	Number of Distinct Non-Detects					2
1362	Minimum Detect					0.0014	Minimum Non-Detect					2.0000E-4
1363	Maximum Detect					3.9	Maximum Non-Detect					0.005
1364	Variance Detects					0.152	Percent Non-Detects					39.69%

1365					Mean Detects	0.1					SD Detects	0.39
1366					Median Detects	0.0173					CV Detects	3.882
1367					Skewness Detects	8.492					Kurtosis Detects	80.05
1368					Mean of Logged Detects	-3.716					SD of Logged Detects	1.386
1369												
1370	**Normal GOF Test on Detects Only**											
1371					Shapiro Wilk Test Statistic	0.256	**Normal GOF Test on Detected Observations Only**					
1372					1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level					
1373					Lilliefors Test Statistic	0.4	**Lilliefors GOF Test**					
1374					1% Lilliefors Critical Value	0.0951	Detected Data Not Normal at 1% Significance Level					
1375	**Detected Data Not Normal at 1% Significance Level**											
1376												
1377	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1378					KM Mean	0.0614					KM Standard Error of Mean	0.022
1379					90KM SD	0.305					95% KM (BCA) UCL	0.105
1380					95% KM (t) UCL	0.0978					95% KM (Percentile Bootstrap) UCL	0.1
1381					95% KM (z) UCL	0.0976					95% KM Bootstrap t UCL	0.176
1382					90% KM Chebyshev UCL	0.127					95% KM Chebyshev UCL	0.157
1383					97.5% KM Chebyshev UCL	0.199					99% KM Chebyshev UCL	0.28
1384												
1385	**Gamma GOF Tests on Detected Observations Only**											
1386					A-D Test Statistic	10.68	**Anderson-Darling GOF Test**					
1387					5% A-D Critical Value	0.83	Detected Data Not Gamma Distributed at 5% Significance Level					
1388					K-S Test Statistic	0.239	**Kolmogorov-Smirnov GOF**					
1389					5% K-S Critical Value	0.0905	Detected Data Not Gamma Distributed at 5% Significance Level					
1390	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1391												
1392	**Gamma Statistics on Detected Data Only**											
1393					k hat (MLE)	0.455					k star (bias corrected MLE)	0.449
1394					Theta hat (MLE)	0.221					Theta star (bias corrected MLE)	0.224
1395					nu hat (MLE)	106.4					nu star (bias corrected)	105
1396					Mean (detects)	0.1						
1397												
1398	**Gamma ROS Statistics using Imputed Non-Detects**											
1399	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1400	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1401	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1402	This is especially true when the sample size is small.											
1403	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1404					Minimum	0.0014					Mean	0.0645
1405					Maximum	3.9					Median	0.01
1406					SD	0.305					CV	4.734
1407					k hat (MLE)	0.481					k star (bias corrected MLE)	0.477
1408					Theta hat (MLE)	0.134					Theta star (bias corrected MLE)	0.135
1409					nu hat (MLE)	186.7					nu star (bias corrected)	185.1
1410					Adjusted Level of Significance (β)	0.0488						
1411					Approximate Chi Square Value (185.11, α)	154.6					Adjusted Chi Square Value (185.11, β)	154.4
1412					95% Gamma Approximate UCL	0.0772					95% Gamma Adjusted UCL	0.0773
1413												
1414	**Estimates of Gamma Parameters using KM Estimates**											
1415					Mean (KM)	0.0614					SD (KM)	0.305
1416					Variance (KM)	0.0932					SE of Mean (KM)	0.022
1417					k hat (KM)	0.0405					k star (KM)	0.0433
1418					nu hat (KM)	15.71					nu star (KM)	16.8

1419					theta hat (KM)	1.517					theta star (KM)	1.419
1420					80% gamma percentile (KM)	0.00478					90% gamma percentile (KM)	0.0761
1421					95% gamma percentile (KM)	0.307					99% gamma percentile (KM)	1.411
1422												
1423					**Gamma Kaplan-Meier (KM) Statistics**							
1424					Approximate Chi Square Value (16.80, α)	8.528					Adjusted Chi Square Value (16.80, β)	8.484
1425					95% KM Approximate Gamma UCL	0.121					95% KM Adjusted Gamma UCL	0.122
1426												
1427					**Lognormal GOF Test on Detected Observations Only**							
1428					Shapiro Wilk Approximate Test Statistic	0.944					**Shapiro Wilk GOF Test**	
1429					10% Shapiro Wilk P Value	1.5008E-4					Detected Data Not Lognormal at 10% Significance Level	
1430					Lilliefors Test Statistic	0.126					**Lilliefors GOF Test**	
1431					10% Lilliefors Critical Value	0.0753					Detected Data Not Lognormal at 10% Significance Level	
1432					**Detected Data Not Lognormal at 10% Significance Level**							
1433												
1434					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1435					Mean in Original Scale	0.0612					Mean in Log Scale	-4.967
1436					SD in Original Scale	0.306					SD in Log Scale	2.012
1437					95% t UCL (assumes normality of ROS data)	0.0975					95% Percentile Bootstrap UCL	0.101
1438					95% BCA Bootstrap UCL	0.12					95% Bootstrap t UCL	0.165
1439					95% H-UCL (Log ROS)	0.0842						
1440												
1441					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1442					KM Mean (logged)	-4.862					KM Geo Mean	0.00773
1443					KM SD (logged)	1.927					95% Critical H Value (KM-Log)	3.136
1444					KM Standard Error of Mean (logged)	0.219					95% H-UCL (KM -Log)	0.0765
1445					KM SD (logged)	1.927					95% Critical H Value (KM-Log)	3.136
1446					KM Standard Error of Mean (logged)	0.219						
1447												
1448					**DL/2 Statistics**							
1449					**DL/2 Normal**						**DL/2 Log-Transformed**	
1450					Mean in Original Scale	0.0615					Mean in Log Scale	-4.652
1451					SD in Original Scale	0.306					SD in Log Scale	1.612
1452					95% t UCL (Assumes normality)	0.0978					95% H-Stat UCL	0.0483
1453					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1454												
1455					**Nonparametric Distribution Free UCL Statistics**							
1456					**Data do not follow a Discernible Distribution**							
1457												
1458					**Suggested UCL to Use**							
1459					95% KM (t) UCL	0.0978						
1460												
1461					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1462					**Please verify the data were collected from random locations.**							
1463					**If the data were collected using judgmental or other non-random methods,**							
1464					**then contact a statistician to correctly calculate UCLs.**							
1465												
1466					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1467					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1468					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1469												
1470	**AIID_PFOS_SA01**											
1471												
1472					**General Statistics**							

1473	Total Number of Observations					156	Number of Distinct Observations					98
1474	Number of Detects					140	Number of Non-Detects					16
1475	Number of Distinct Detects					97	Number of Distinct Non-Detects					1
1476	Minimum Detect					0.0054	Minimum Non-Detect					0.005
1477	Maximum Detect					2.3	Maximum Non-Detect					0.005
1478	Variance Detects					0.116	Percent Non-Detects					10.26%
1479	Mean Detects					0.183	SD Detects					0.341
1480	Median Detects					0.046	CV Detects					1.865
1481	Skewness Detects					3.447	Kurtosis Detects					14.25
1482	Mean of Logged Detects					-2.847	SD of Logged Detects					1.501
1483												
1484	**Normal GOF Test on Detects Only**											
1485	Shapiro Wilk Test Statistic					0.563	**Normal GOF Test on Detected Observations Only**					
1486	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
1487	Lilliefors Test Statistic					0.301	**Lilliefors GOF Test**					
1488	1% Lilliefors Critical Value					0.087	Detected Data Not Normal at 1% Significance Level					
1489	**Detected Data Not Normal at 1% Significance Level**											
1490												
1491	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1492	KM Mean					0.165	KM Standard Error of Mean					0.0262
1493	90KM SD					0.326	95% KM (BCA) UCL					0.211
1494	95% KM (t) UCL					0.208	95% KM (Percentile Bootstrap) UCL					0.209
1495	95% KM (z) UCL					0.208	95% KM Bootstrap t UCL					0.216
1496	90% KM Chebyshev UCL					0.243	95% KM Chebyshev UCL					0.279
1497	97.5% KM Chebyshev UCL					0.328	99% KM Chebyshev UCL					0.426
1498												
1499	**Gamma GOF Tests on Detected Observations Only**											
1500	A-D Test Statistic					5.974	**Anderson-Darling GOF Test**					
1501	5% A-D Critical Value					0.815	Detected Data Not Gamma Distributed at 5% Significance Level					
1502	K-S Test Statistic					0.181	**Kolmogorov-Smirnov GOF**					
1503	5% K-S Critical Value					0.0834	Detected Data Not Gamma Distributed at 5% Significance Level					
1504	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1505												
1506	**Gamma Statistics on Detected Data Only**											
1507	k hat (MLE)					0.546	k star (bias corrected MLE)					0.539
1508	Theta hat (MLE)					0.335	Theta star (bias corrected MLE)					0.339
1509	nu hat (MLE)					152.8	nu star (bias corrected)					150.9
1510	Mean (detects)					0.183						
1511												
1512	**Gamma ROS Statistics using Imputed Non-Detects**											
1513	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1514	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1515	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1516	This is especially true when the sample size is small.											
1517	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1518	Minimum					0.0054	Mean					0.165
1519	Maximum					2.3	Median					0.037
1520	SD					0.327	CV					1.982
1521	k hat (MLE)					0.515	k star (bias corrected MLE)					0.51
1522	Theta hat (MLE)					0.32	Theta star (bias corrected MLE)					0.324
1523	nu hat (MLE)					160.8	nu star (bias corrected)					159.1
1524	Adjusted Level of Significance (β)					0.0485						
1525	Approximate Chi Square Value (159.07, α)					130.9	Adjusted Chi Square Value (159.07, β)					130.7
1526	95% Gamma Approximate UCL					0.201	95% Gamma Adjusted UCL					0.201

1527											
1528	**Estimates of Gamma Parameters using KM Estimates**										
1529					Mean (KM)	0.165			SD (KM)		0.326
1530					Variance (KM)	0.107			SE of Mean (KM)		0.0262
1531					k hat (KM)	0.254			k star (KM)		0.254
1532					nu hat (KM)	79.34			nu star (KM)		79.15
1533					theta hat (KM)	0.647			theta star (KM)		0.649
1534					80% gamma percentile (KM)	0.24			90% gamma percentile (KM)		0.493
1535					95% gamma percentile (KM)	0.793			99% gamma percentile (KM)		1.589
1536											
1537	**Gamma Kaplan-Meier (KM) Statistics**										
1538					Approximate Chi Square Value (79.15, α)	59.65			Adjusted Chi Square Value (79.15, β)		59.49
1539					95% KM Approximate Gamma UCL	0.218			95% KM Adjusted Gamma UCL		0.219
1540											
1541	**Lognormal GOF Test on Detected Observations Only**										
1542					Shapiro Wilk Approximate Test Statistic	0.944			**Shapiro Wilk GOF Test**		
1543					10% Shapiro Wilk P Value	1.7434E-5			Detected Data Not Lognormal at 10% Significance Level		
1544					Lilliefors Test Statistic	0.073			**Lilliefors GOF Test**		
1545					10% Lilliefors Critical Value	0.0689			Detected Data Not Lognormal at 10% Significance Level		
1546	**Detected Data Not Lognormal at 10% Significance Level**										
1547											
1548	**Lognormal ROS Statistics Using Imputed Non-Detects**										
1549					Mean in Original Scale	0.164			Mean in Log Scale		-3.202
1550					SD in Original Scale	0.328			SD in Log Scale		1.78
1551					95% t UCL (assumes normality of ROS data)	0.208			95% Percentile Bootstrap UCL		0.21
1552					95% BCA Bootstrap UCL	0.214			95% Bootstrap t UCL		0.218
1553					95% H-UCL (Log ROS)	0.306					
1554											
1555	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
1556					KM Mean (logged)	-3.099			KM Geo Mean		0.0451
1557					KM SD (logged)	1.6			95% Critical H Value (KM-Log)		2.831
1558					KM Standard Error of Mean (logged)	0.129			95% H-UCL (KM -Log)		0.233
1559					KM SD (logged)	1.6			95% Critical H Value (KM-Log)		2.831
1560					KM Standard Error of Mean (logged)	0.129					
1561											
1562	**DL/2 Statistics**										
1563	**DL/2 Normal**								**DL/2 Log-Transformed**		
1564					Mean in Original Scale	0.164			Mean in Log Scale		-3.17
1565					SD in Original Scale	0.328			SD in Log Scale		1.713
1566					95% t UCL (Assumes normality)	0.208			95% H-Stat UCL		0.274
1567	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
1568											
1569	**Nonparametric Distribution Free UCL Statistics**										
1570	**Data do not follow a Discernible Distribution**										
1571											
1572	**Suggested UCL to Use**										
1573					95% KM (t) UCL	0.208					
1574											
1575	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
1576	**Please verify the data were collected from random locations.**										
1577	**If the data were collected using judgmental or other non-random methods,**										
1578	**then contact a statistician to correctly calculate UCLs.**										
1579											
1580	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										

	A	B	C	D	E	F	G	H	I	J	K	L
1581	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1582	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1583												
1584	**AllD_PFOS_SA02**											
1585												
1586	**General Statistics**											
1587						Total Number of Observations	118			Number of Distinct Observations	83	
1588						Number of Detects	105			Number of Non-Detects	13	
1589						Number of Distinct Detects	82			Number of Distinct Non-Detects	1	
1590						Minimum Detect	0.0058			Minimum Non-Detect	0.005	
1591						Maximum Detect	4.2			Maximum Non-Detect	0.005	
1592						Variance Detects	0.46			Percent Non-Detects	11.02%	
1593						Mean Detects	0.385			SD Detects	0.678	
1594						Median Detects	0.11			CV Detects	1.762	
1595						Skewness Detects	3.154			Kurtosis Detects	11.81	
1596						Mean of Logged Detects	-2.196			SD of Logged Detects	1.683	
1597												
1598	**Normal GOF Test on Detects Only**											
1599						Shapiro Wilk Test Statistic	0.601			**Normal GOF Test on Detected Observations Only**		
1600						1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level		
1601						Lilliefors Test Statistic	0.288			**Lilliefors GOF Test**		
1602						1% Lilliefors Critical Value	0.1			Detected Data Not Normal at 1% Significance Level		
1603	**Detected Data Not Normal at 1% Significance Level**											
1604												
1605	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1606						KM Mean	0.343			KM Standard Error of Mean	0.0599	
1607						90KM SD	0.648			95% KM (BCA) UCL	0.446	
1608						95% KM (t) UCL	0.442			95% KM (Percentile Bootstrap) UCL	0.446	
1609						95% KM (z) UCL	0.442			95% KM Bootstrap t UCL	0.473	
1610						90% KM Chebyshev UCL	0.523			95% KM Chebyshev UCL	0.604	
1611						97.5% KM Chebyshev UCL	0.717			99% KM Chebyshev UCL	0.939	
1612												
1613	**Gamma GOF Tests on Detected Observations Only**											
1614						A-D Test Statistic	2.561			**Anderson-Darling GOF Test**		
1615						5% A-D Critical Value	0.818			Detected Data Not Gamma Distributed at 5% Significance Level		
1616						K-S Test Statistic	0.129			**Kolmogorov-Smirnov GOF**		
1617						5% K-S Critical Value	0.0932			Detected Data Not Gamma Distributed at 5% Significance Level		
1618	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1619												
1620	**Gamma Statistics on Detected Data Only**											
1621						k hat (MLE)	0.51			k star (bias corrected MLE)	0.502	
1622						Theta hat (MLE)	0.754			Theta star (bias corrected MLE)	0.767	
1623						nu hat (MLE)	107.2			nu star (bias corrected)	105.4	
1624						Mean (detects)	0.385					
1625												
1626	**Gamma ROS Statistics using Imputed Non-Detects**											
1627	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1628	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1629	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1630	This is especially true when the sample size is small.											
1631	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1632						Minimum	0.0058			Mean	0.344	
1633						Maximum	4.2			Median	0.067	
1634						SD	0.65			CV	1.892	

1635					k hat (MLE)	0.462					k star (bias corrected MLE)	0.456
1636					Theta hat (MLE)	0.744					Theta star (bias corrected MLE)	0.754
1637					nu hat (MLE)	109					nu star (bias corrected)	107.5
1638					Adjusted Level of Significance (β)	0.048						
1639					Approximate Chi Square Value (107.54, α)	84.61					Adjusted Chi Square Value (107.54, β)	84.36
1640					95% Gamma Approximate UCL	0.437					95% Gamma Adjusted UCL	0.438
1641												
1642					**Estimates of Gamma Parameters using KM Estimates**							
1643					Mean (KM)	0.343					SD (KM)	0.648
1644					Variance (KM)	0.419					SE of Mean (KM)	0.0599
1645					k hat (KM)	0.28					k star (KM)	0.279
1646					nu hat (KM)	66.2					nu star (KM)	65.85
1647					theta hat (KM)	1.223					theta star (KM)	1.229
1648					80% gamma percentile (KM)	0.516					90% gamma percentile (KM)	1.02
1649					95% gamma percentile (KM)	1.606					99% gamma percentile (KM)	3.142
1650												
1651					**Gamma Kaplan-Meier (KM) Statistics**							
1652					Approximate Chi Square Value (65.85, α)	48.17					Adjusted Chi Square Value (65.85, β)	47.99
1653					95% KM Approximate Gamma UCL	0.469					95% KM Adjusted Gamma UCL	0.471
1654												
1655					**Lognormal GOF Test on Detected Observations Only**							
1656					Shapiro Wilk Approximate Test Statistic	0.955					**Shapiro Wilk GOF Test**	
1657					10% Shapiro Wilk P Value	0.00554					Detected Data Not Lognormal at 10% Significance Level	
1658					Lilliefors Test Statistic	0.0704					**Lilliefors GOF Test**	
1659					10% Lilliefors Critical Value	0.0794					Detected Data appear Lognormal at 10% Significance Level	
1660					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
1661												
1662					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1663					Mean in Original Scale	0.343					Mean in Log Scale	-2.622
1664					SD in Original Scale	0.651					SD in Log Scale	2.012
1665					95% t UCL (assumes normality of ROS data)	0.442					95% Percentile Bootstrap UCL	0.444
1666					95% BCA Bootstrap UCL	0.457					95% Bootstrap t UCL	0.469
1667					95% H-UCL (Log ROS)	1.027						
1668												
1669					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1670					KM Mean (logged)	-2.537					KM Geo Mean	0.0791
1671					KM SD (logged)	1.855					95% Critical H Value (KM-Log)	3.156
1672					KM Standard Error of Mean (logged)	0.172					95% H-UCL (KM -Log)	0.759
1673					KM SD (logged)	1.855					95% Critical H Value (KM-Log)	3.156
1674					KM Standard Error of Mean (logged)	0.172						
1675												
1676					**DL/2 Statistics**							
1677					**DL/2 Normal**						**DL/2 Log-Transformed**	
1678					Mean in Original Scale	0.343					Mean in Log Scale	-2.614
1679					SD in Original Scale	0.651					SD in Log Scale	1.986
1680					95% t UCL (Assumes normality)	0.442					95% H-Stat UCL	0.967
1681					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1682												
1683					**Nonparametric Distribution Free UCL Statistics**							
1684					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**							
1685												
1686					**Suggested UCL to Use**							
1687					KM H-UCL	0.759						
1688												

1689	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1690	**Please verify the data were collected from random locations.**											
1691	**If the data were collected using judgmental or other non-random methods,**											
1692	**then contact a statistician to correctly calculate UCLs.**											
1693												
1694	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1695	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1696	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1697												
1698	**AllD_PFOS_SA03**											
1699												
1700	**General Statistics**											
1701	Total Number of Observations				37		Number of Distinct Observations				3	
1702	Number of Detects				2		Number of Non-Detects				35	
1703	Number of Distinct Detects				2		Number of Distinct Non-Detects				1	
1704	Minimum Detect				0.0095		Minimum Non-Detect				0.005	
1705	Maximum Detect				0.01		Maximum Non-Detect				0.005	
1706	Variance Detects				1.2500E-7		Percent Non-Detects				94.59%	
1707	Mean Detects				0.00975		SD Detects				3.5355E-4	
1708	Median Detects				0.00975		CV Detects				0.0363	
1709	Skewness Detects				N/A		Kurtosis Detects				N/A	
1710	Mean of Logged Detects				-4.631		SD of Logged Detects				0.0363	
1711												
1712	**Warning: Data set has only 2 Detected Values.**											
1713	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1714												
1715												
1716	**Normal GOF Test on Detects Only**											
1717	**Not Enough Data to Perform GOF Test**											
1718												
1719	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1720	KM Mean				0.00526		KM Standard Error of Mean				2.5009E-4	
1721	90KM SD				0.00108		95% KM (BCA) UCL				N/A	
1722	95% KM (t) UCL				0.00568		95% KM (Percentile Bootstrap) UCL				N/A	
1723	95% KM (z) UCL				0.00567		95% KM Bootstrap t UCL				N/A	
1724	90% KM Chebyshev UCL				0.00601		95% KM Chebyshev UCL				0.00635	
1725	97.5% KM Chebyshev UCL				0.00682		99% KM Chebyshev UCL				0.00775	
1726												
1727	**Gamma GOF Tests on Detected Observations Only**											
1728	**Not Enough Data to Perform GOF Test**											
1729												
1730	**Gamma Statistics on Detected Data Only**											
1731	k hat (MLE)				1521		k star (bias corrected MLE)				N/A	
1732	Theta hat (MLE)				6.4117E-6		Theta star (bias corrected MLE)				N/A	
1733	nu hat (MLE)				6083		nu star (bias corrected)				N/A	
1734	Mean (detects)				0.00975							
1735												
1736	**Estimates of Gamma Parameters using KM Estimates**											
1737	Mean (KM)				0.00526		SD (KM)				0.00108	
1738	Variance (KM)				1.1570E-6		SE of Mean (KM)				2.5009E-4	
1739	k hat (KM)				23.88		k star (KM)				21.96	
1740	nu hat (KM)				1767		nu star (KM)				1625	
1741	theta hat (KM)				2.2011E-4		theta star (KM)				2.3933E-4	
1742	80% gamma percentile (KM)				0.00617		90% gamma percentile (KM)				0.00674	

1743	95% gamma percentile (KM)					0.00723	99% gamma percentile (KM)					0.00821
1744												
1745	**Gamma Kaplan-Meier (KM) Statistics**											
1746							Adjusted Level of Significance (β)					0.0431
1747	Approximate Chi Square Value (N/A, α)					1533	Adjusted Chi Square Value (N/A, β)					1529
1748	95% KM Approximate Gamma UCL					0.00557	95% KM Adjusted Gamma UCL					0.00559
1749												
1750	**Lognormal GOF Test on Detected Observations Only**											
1751	**Not Enough Data to Perform GOF Test**											
1752												
1753	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1754	Mean in Original Scale					0.00707	Mean in Log Scale					-4.965
1755	SD in Original Scale					0.00116	SD in Log Scale					0.163
1756	95% t UCL (assumes normality of ROS data)					0.00739	95% Percentile Bootstrap UCL					0.00738
1757	95% BCA Bootstrap UCL					0.00738	95% Bootstrap t UCL					0.00742
1758	95% H-UCL (Log ROS)					0.00741						
1759												
1760	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1761	KM Mean (logged)					-5.262	KM Geo Mean					0.00518
1762	KM SD (logged)					0.151	95% Critical H Value (KM-Log)					1.715
1763	KM Standard Error of Mean (logged)					0.0351	95% H-UCL (KM -Log)					0.00547
1764	KM SD (logged)					0.151	95% Critical H Value (KM-Log)					1.715
1765	KM Standard Error of Mean (logged)					0.0351						
1766												
1767	**DL/2 Statistics**											
1768	**DL/2 Normal**						**DL/2 Log-Transformed**					
1769	Mean in Original Scale					0.00289	Mean in Log Scale					-5.918
1770	SD in Original Scale					0.00166	SD in Log Scale					0.312
1771	95% t UCL (Assumes normality)					0.00335	95% H-Stat UCL					0.0031
1772	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1773												
1774	**Nonparametric Distribution Free UCL Statistics**											
1775	**Data do not follow a Discernible Distribution**											
1776												
1777	**Suggested UCL to Use**											
1778	95% KM (t) UCL					0.00568						
1779												
1780	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1781	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1782	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1783												
1784	**AIID_PFOS_SA04**											
1785												
1786	**General Statistics**											
1787	Total Number of Observations					51	Number of Distinct Observations					38
1788	Number of Detects					41	Number of Non-Detects					10
1789	Number of Distinct Detects					38	Number of Distinct Non-Detects					1
1790	Minimum Detect					0.005	Minimum Non-Detect					0.005
1791	Maximum Detect					200	Maximum Non-Detect					0.005
1792	Variance Detects					1900	Percent Non-Detects					19.61%
1793	Mean Detects					20.78	SD Detects					43.59
1794	Median Detects					0.29	CV Detects					2.098
1795	Skewness Detects					2.627	Kurtosis Detects					7.295
1796	Mean of Logged Detects					-0.495	SD of Logged Detects					3.333

1797												
1798	**Normal GOF Test on Detects Only**											
1799					Shapiro Wilk Test Statistic	0.562	**Shapiro Wilk GOF Test**					
1800					1% Shapiro Wilk Critical Value	0.92	Detected Data Not Normal at 1% Significance Level					
1801					Lilliefors Test Statistic	0.38	**Lilliefors GOF Test**					
1802					1% Lilliefors Critical Value	0.16	Detected Data Not Normal at 1% Significance Level					
1803	**Detected Data Not Normal at 1% Significance Level**											
1804												
1805	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1806					KM Mean	16.7			KM Standard Error of Mean	5.596		
1807					90KM SD	39.47			95% KM (BCA) UCL	24.98		
1808					95% KM (t) UCL	26.08			95% KM (Percentile Bootstrap) UCL	25.59		
1809					95% KM (z) UCL	25.91			95% KM Bootstrap t UCL	31.86		
1810					90% KM Chebyshev UCL	33.49			95% KM Chebyshev UCL	41.09		
1811					97.5% KM Chebyshev UCL	51.65			99% KM Chebyshev UCL	72.38		
1812												
1813	**Gamma GOF Tests on Detected Observations Only**											
1814					A-D Test Statistic	2.306	**Anderson-Darling GOF Test**					
1815					5% A-D Critical Value	0.906	Detected Data Not Gamma Distributed at 5% Significance Level					
1816					K-S Test Statistic	0.188	**Kolmogorov-Smirnov GOF**					
1817					5% K-S Critical Value	0.153	Detected Data Not Gamma Distributed at 5% Significance Level					
1818	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1819												
1820	**Gamma Statistics on Detected Data Only**											
1821					k hat (MLE)	0.207			k star (bias corrected MLE)	0.208		
1822					Theta hat (MLE)	100.2			Theta star (bias corrected MLE)	99.66		
1823					nu hat (MLE)	17			nu star (bias corrected)	17.09		
1824					Mean (detects)	20.78						
1825												
1826	**Gamma ROS Statistics using Imputed Non-Detects**											
1827	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1828	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1829	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1830	This is especially true when the sample size is small.											
1831	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1832					Minimum	0.005			Mean	16.7		
1833					Maximum	200			Median	0.099		
1834					SD	39.86			CV	2.387		
1835					k hat (MLE)	0.181			k star (bias corrected MLE)	0.184		
1836					Theta hat (MLE)	92.04			Theta star (bias corrected MLE)	90.84		
1837					nu hat (MLE)	18.51			nu star (bias corrected)	18.75		
1838					Adjusted Level of Significance (β)	0.0453						
1839					Approximate Chi Square Value (18.75, α)	9.938			Adjusted Chi Square Value (18.75, β)	9.751		
1840					95% Gamma Approximate UCL	31.52			95% Gamma Adjusted UCL	32.13		
1841												
1842	**Estimates of Gamma Parameters using KM Estimates**											
1843					Mean (KM)	16.7			SD (KM)	39.47		
1844					Variance (KM)	1558			SE of Mean (KM)	5.596		
1845					k hat (KM)	0.179			k star (KM)	0.182		
1846					nu hat (KM)	18.26			nu star (KM)	18.52		
1847					theta hat (KM)	93.28			theta star (KM)	91.97		
1848					80% gamma percentile (KM)	20.84			90% gamma percentile (KM)	50.39		
1849					95% gamma percentile (KM)	88.17			99% gamma percentile (KM)	193.9		
1850												

1851	**Gamma Kaplan-Meier (KM) Statistics**											
1852	Approximate Chi Square Value (18.52, α)					9.77	Adjusted Chi Square Value (18.52, β)					9.585
1853	95% KM Approximate Gamma UCL					31.67	95% KM Adjusted Gamma UCL					32.28
1854												
1855	**Lognormal GOF Test on Detected Observations Only**											
1856	Shapiro Wilk Test Statistic					0.914	**Shapiro Wilk GOF Test**					
1857	10% Shapiro Wilk Critical Value					0.95	Detected Data Not Lognormal at 10% Significance Level					
1858	Lilliefors Test Statistic					0.142	**Lilliefors GOF Test**					
1859	10% Lilliefors Critical Value					0.126	Detected Data Not Lognormal at 10% Significance Level					
1860	**Detected Data Not Lognormal at 10% Significance Level**											
1861												
1862	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1863	Mean in Original Scale					16.7	Mean in Log Scale					-2
1864	SD in Original Scale					39.86	SD in Log Scale					4.345
1865	95% t UCL (assumes normality of ROS data)					26.06	95% Percentile Bootstrap UCL					26.49
1866	95% BCA Bootstrap UCL					27.89	95% Bootstrap t UCL					30.74
1867	95% H-UCL (Log ROS)					121255						
1868												
1869	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1870	KM Mean (logged)					-1.437	KM Geo Mean					0.238
1871	KM SD (logged)					3.514	95% Critical H Value (KM-Log)					5.702
1872	KM Standard Error of Mean (logged)					0.498	95% H-UCL (KM -Log)					1944
1873	KM SD (logged)					3.514	95% Critical H Value (KM-Log)					5.702
1874	KM Standard Error of Mean (logged)					0.498						
1875												
1876	**DL/2 Statistics**											
1877	**DL/2 Normal**						**DL/2 Log-Transformed**					
1878	Mean in Original Scale					16.7	Mean in Log Scale					-1.573
1879	SD in Original Scale					39.86	SD in Log Scale					3.707
1880	95% t UCL (Assumes normality)					26.06	95% H-Stat UCL					4627
1881	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1882												
1883	**Nonparametric Distribution Free UCL Statistics**											
1884	**Data do not follow a Discernible Distribution**											
1885												
1886	**Suggested UCL to Use**											
1887	95% KM (t) UCL					26.08						
1888												
1889	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1890	**Please verify the data were collected from random locations.**											
1891	**If the data were collected using judgmental or other non-random methods,**											
1892	**then contact a statistician to correctly calculate UCLs.**											
1893												
1894	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1895	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1896	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1897												
1898	**AIID_PFOS_SA05**											
1899												
1900	**General Statistics**											
1901	Total Number of Observations					47	Number of Distinct Observations					38
1902	Number of Detects					44	Number of Non-Detects					3
1903	Number of Distinct Detects					37	Number of Distinct Non-Detects					1
1904	Minimum Detect					0.0093	Minimum Non-Detect					0.005

1905					Maximum Detect	17					Maximum Non-Detect	0.005
1906					Variance Detects	6.746					Percent Non-Detects	6.383%
1907					Mean Detects	0.684					SD Detects	2.597
1908					Median Detects	0.11					CV Detects	3.799
1909					Skewness Detects	6.08					Kurtosis Detects	38.49
1910					Mean of Logged Detects	-2.153					SD of Logged Detects	1.625
1911												
1912					**Normal GOF Test on Detects Only**							
1913					Shapiro Wilk Test Statistic	0.267			**Shapiro Wilk GOF Test**			
1914					1% Shapiro Wilk Critical Value	0.924			Detected Data Not Normal at 1% Significance Level			
1915					Lilliefors Test Statistic	0.398			**Lilliefors GOF Test**			
1916					1% Lilliefors Critical Value	0.154			Detected Data Not Normal at 1% Significance Level			
1917					**Detected Data Not Normal at 1% Significance Level**							
1918												
1919					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1920					KM Mean	0.64			KM Standard Error of Mean			0.367
1921					90KM SD	2.49			95% KM (BCA) UCL			1.351
1922					95% KM (t) UCL	1.257			95% KM (Percentile Bootstrap) UCL			1.346
1923					95% KM (z) UCL	1.245			95% KM Bootstrap t UCL			5.054
1924					90% KM Chebyshev UCL	1.743			95% KM Chebyshev UCL			2.242
1925					97.5% KM Chebyshev UCL	2.935			99% KM Chebyshev UCL			4.296
1926												
1927					**Gamma GOF Tests on Detected Observations Only**							
1928					A-D Test Statistic	3.937			**Anderson-Darling GOF Test**			
1929					5% A-D Critical Value	0.843			Detected Data Not Gamma Distributed at 5% Significance Level			
1930					K-S Test Statistic	0.236			**Kolmogorov-Smirnov GOF**			
1931					5% K-S Critical Value	0.143			Detected Data Not Gamma Distributed at 5% Significance Level			
1932					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1933												
1934					**Gamma Statistics on Detected Data Only**							
1935					k hat (MLE)	0.375			k star (bias corrected MLE)			0.365
1936					Theta hat (MLE)	1.823			Theta star (bias corrected MLE)			1.875
1937					nu hat (MLE)	33.01			nu star (bias corrected)			32.09
1938					Mean (detects)	0.684						
1939												
1940					**Gamma ROS Statistics using Imputed Non-Detects**							
1941					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1942					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1943					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1944					This is especially true when the sample size is small.							
1945					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1946					Minimum	0.0093			Mean			0.641
1947					Maximum	17			Median			0.11
1948					SD	2.517			CV			3.928
1949					k hat (MLE)	0.359			k star (bias corrected MLE)			0.35
1950					Theta hat (MLE)	1.784			Theta star (bias corrected MLE)			1.828
1951					nu hat (MLE)	33.77			nu star (bias corrected)			32.94
1952					Adjusted Level of Significance (β)	0.0449						
1953					Approximate Chi Square Value (32.94, α)	20.82			Adjusted Chi Square Value (32.94, β)			20.52
1954					95% Gamma Approximate UCL	1.014			95% Gamma Adjusted UCL			1.029
1955												
1956					**Estimates of Gamma Parameters using KM Estimates**							
1957					Mean (KM)	0.64			SD (KM)			2.49
1958					Variance (KM)	6.2			SE of Mean (KM)			0.367

1959					k hat (KM)	0.0662					k star (KM)	0.0761
1960					nu hat (KM)	6.218					nu star (KM)	7.155
1961					theta hat (KM)	9.681					theta star (KM)	8.414
1962					80% gamma percentile (KM)	0.276					90% gamma percentile (KM)	1.47
1963					95% gamma percentile (KM)	3.713					99% gamma percentile (KM)	11.61
1964												
1965	**Gamma Kaplan-Meier (KM) Statistics**											
1966					Approximate Chi Square Value (7.15, α)	2.256					Adjusted Chi Square Value (7.15, β)	2.17
1967					95% KM Approximate Gamma UCL	2.031					95% KM Adjusted Gamma UCL	2.112
1968	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
1969												
1970	**Lognormal GOF Test on Detected Observations Only**											
1971					Shapiro Wilk Test Statistic	0.957	**Shapiro Wilk GOF Test**					
1972					10% Shapiro Wilk Critical Value	0.952	Detected Data appear Lognormal at 10% Significance Level					
1973					Lilliefors Test Statistic	0.0856	**Lilliefors GOF Test**					
1974					10% Lilliefors Critical Value	0.122	Detected Data appear Lognormal at 10% Significance Level					
1975	**Detected Data appear Lognormal at 10% Significance Level**											
1976												
1977	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1978					Mean in Original Scale	0.64					Mean in Log Scale	-2.398
1979					SD in Original Scale	2.517					SD in Log Scale	1.838
1980					95% t UCL (assumes normality of ROS data)	1.257					95% Percentile Bootstrap UCL	1.334
1981					95% BCA Bootstrap UCL	1.72					95% Bootstrap t UCL	4.85
1982					95% H-UCL (Log ROS)	1.225						
1983												
1984	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1985					KM Mean (logged)	-2.354					KM Geo Mean	0.095
1986					KM SD (logged)	1.734					95% Critical H Value (KM-Log)	3.228
1987					KM Standard Error of Mean (logged)	0.256					95% H-UCL (KM -Log)	0.976
1988					KM SD (logged)	1.734					95% Critical H Value (KM-Log)	3.228
1989					KM Standard Error of Mean (logged)	0.256						
1990												
1991	**DL/2 Statistics**											
1992					**DL/2 Normal**						**DL/2 Log-Transformed**	
1993					Mean in Original Scale	0.64					Mean in Log Scale	-2.398
1994					SD in Original Scale	2.517					SD in Log Scale	1.835
1995					95% t UCL (Assumes normality)	1.257					95% H-Stat UCL	1.218
1996	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1997												
1998	**Nonparametric Distribution Free UCL Statistics**											
1999	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
2000												
2001	**Suggested UCL to Use**											
2002					KM H-UCL	0.976						
2003												
2004	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2005	**Please verify the data were collected from random locations.**											
2006	**If the data were collected using judgmental or other non-random methods,**											
2007	**then contact a statistician to correctly calculate UCLs.**											
2008												
2009	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2010	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2011	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2012												

2013	AIID_PFOS_SA06										
2014											
2015	**General Statistics**										
2016				Total Number of Observations	65			Number of Distinct Observations	27		
2017				Number of Detects	26			Number of Non-Detects	39		
2018				Number of Distinct Detects	26			Number of Distinct Non-Detects	1		
2019				Minimum Detect	0.0052			Minimum Non-Detect	0.005		
2020				Maximum Detect	12			Maximum Non-Detect	0.005		
2021				Variance Detects	7.794			Percent Non-Detects	60%		
2022				Mean Detects	0.896			SD Detects	2.792		
2023				Median Detects	0.0375			CV Detects	3.117		
2024				Skewness Detects	3.509			Kurtosis Detects	11.86		
2025				Mean of Logged Detects	-2.857			SD of Logged Detects	2.018		
2026											
2027	**Normal GOF Test on Detects Only**										
2028				Shapiro Wilk Test Statistic	0.36			**Shapiro Wilk GOF Test**			
2029				1% Shapiro Wilk Critical Value	0.891			Detected Data Not Normal at 1% Significance Level			
2030				Lilliefors Test Statistic	0.453			**Lilliefors GOF Test**			
2031				1% Lilliefors Critical Value	0.199			Detected Data Not Normal at 1% Significance Level			
2032	**Detected Data Not Normal at 1% Significance Level**										
2033											
2034	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
2035				KM Mean	0.361			KM Standard Error of Mean	0.226		
2036				90KM SD	1.785			95% KM (BCA) UCL	0.775		
2037				95% KM (t) UCL	0.738			95% KM (Percentile Bootstrap) UCL	0.765		
2038				95% KM (z) UCL	0.733			95% KM Bootstrap t UCL	3.25		
2039				90% KM Chebyshev UCL	1.039			95% KM Chebyshev UCL	1.346		
2040				97.5% KM Chebyshev UCL	1.772			99% KM Chebyshev UCL	2.608		
2041											
2042	**Gamma GOF Tests on Detected Observations Only**										
2043				A-D Test Statistic	4.052			**Anderson-Darling GOF Test**			
2044				5% A-D Critical Value	0.873			Detected Data Not Gamma Distributed at 5% Significance Level			
2045				K-S Test Statistic	0.367			**Kolmogorov-Smirnov GOF**			
2046				5% K-S Critical Value	0.188			Detected Data Not Gamma Distributed at 5% Significance Level			
2047	**Detected Data Not Gamma Distributed at 5% Significance Level**										
2048											
2049	**Gamma Statistics on Detected Data Only**										
2050				k hat (MLE)	0.257			k star (bias corrected MLE)	0.253		
2051				Theta hat (MLE)	3.48			Theta star (bias corrected MLE)	3.536		
2052				nu hat (MLE)	13.38			nu star (bias corrected)	13.17		
2053				Mean (detects)	0.896						
2054											
2055	**Gamma ROS Statistics using Imputed Non-Detects**										
2056	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
2057	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
2058	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
2059	This is especially true when the sample size is small.										
2060	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
2061				Minimum	0.0052			Mean	0.364		
2062				Maximum	12			Median	0.01		
2063				SD	1.799			CV	4.938		
2064				k hat (MLE)	0.246			k star (bias corrected MLE)	0.245		
2065				Theta hat (MLE)	1.481			Theta star (bias corrected MLE)	1.488		
2066				nu hat (MLE)	31.97			nu star (bias corrected)	31.83		

2067	Adjusted Level of Significance (β)					0.0463						
2068	Approximate Chi Square Value (31.83, α)					19.93	Adjusted Chi Square Value (31.83, β)					19.72
2069	95% Gamma Approximate UCL					0.582	95% Gamma Adjusted UCL					0.588
2070												
2071	**Estimates of Gamma Parameters using KM Estimates**											
2072	Mean (KM)					0.361	SD (KM)					1.785
2073	Variance (KM)					3.188	SE of Mean (KM)					0.226
2074	k hat (KM)					0.0409	k star (KM)					0.0493
2075	nu hat (KM)					5.323	nu star (KM)					6.411
2076	theta hat (KM)					8.824	theta star (KM)					7.327
2077	80% gamma percentile (KM)					0.0466	90% gamma percentile (KM)					0.541
2078	95% gamma percentile (KM)					1.912	99% gamma percentile (KM)					7.902
2079												
2080	**Gamma Kaplan-Meier (KM) Statistics**											
2081	Approximate Chi Square Value (6.41, α)					1.853	Adjusted Chi Square Value (6.41, β)					1.798
2082	95% KM Approximate Gamma UCL					1.25	95% KM Adjusted Gamma UCL					1.288
2083												
2084	**Lognormal GOF Test on Detected Observations Only**											
2085	Shapiro Wilk Test Statistic					0.864	**Shapiro Wilk GOF Test**					
2086	10% Shapiro Wilk Critical Value					0.933	Detected Data Not Lognormal at 10% Significance Level					
2087	Lilliefors Test Statistic					0.179	**Lilliefors GOF Test**					
2088	10% Lilliefors Critical Value					0.156	Detected Data Not Lognormal at 10% Significance Level					
2089	**Detected Data Not Lognormal at 10% Significance Level**											
2090												
2091	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2092	Mean in Original Scale					0.359	Mean in Log Scale					-6.506
2093	SD in Original Scale					1.8	SD in Log Scale					3.729
2094	95% t UCL (assumes normality of ROS data)					0.731	95% Percentile Bootstrap UCL					0.751
2095	95% BCA Bootstrap UCL					0.953	95% Bootstrap t UCL					3.24
2096	95% H-UCL (Log ROS)					15.43						
2097												
2098	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2099	KM Mean (logged)					-4.322	KM Geo Mean					0.0133
2100	KM SD (logged)					1.731	95% Critical H Value (KM-Log)					2.701
2101	KM Standard Error of Mean (logged)					0.219	95% H-UCL (KM -Log)					0.107
2102	KM SD (logged)					1.731	95% Critical H Value (KM-Log)					2.701
2103	KM Standard Error of Mean (logged)					0.219						
2104	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2105												
2106	**DL/2 Statistics**											
2107	**DL/2 Normal**						**DL/2 Log-Transformed**					
2108	Mean in Original Scale					0.36	Mean in Log Scale					-4.738
2109	SD in Original Scale					1.8	SD in Log Scale					1.997
2110	95% t UCL (Assumes normality)					0.732	95% H-Stat UCL					0.137
2111	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2112												
2113	**Nonparametric Distribution Free UCL Statistics**											
2114	**Data do not follow a Discernible Distribution**											
2115												
2116	**Suggested UCL to Use**											
2117	95% KM (t) UCL					0.738						
2118												
2119	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2120	**Please verify the data were collected from random locations.**											

2121	**If the data were collected using judgmental or other non-random methods,**											
2122	**then contact a statistician to correctly calculate UCLs.**											
2123												
2124	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2125	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2126	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2127												
2128	**AIID_PFOS_SA07**											
2129												
2130	**General Statistics**											
2131	Total Number of Observations				50		Number of Distinct Observations					39
2132	Number of Detects				46		Number of Non-Detects					4
2133	Number of Distinct Detects				39		Number of Distinct Non-Detects					1
2134	Minimum Detect				0.005		Minimum Non-Detect					0.005
2135	Maximum Detect				0.45		Maximum Non-Detect					0.005
2136	Variance Detects				0.00691		Percent Non-Detects					8%
2137	Mean Detects				0.0483		SD Detects					0.0831
2138	Median Detects				0.0185		CV Detects					1.721
2139	Skewness Detects				3.493		Kurtosis Detects					13.53
2140	Mean of Logged Detects				-3.782		SD of Logged Detects					1.119
2141												
2142	**Normal GOF Test on Detects Only**											
2143	Shapiro Wilk Test Statistic				0.541		**Shapiro Wilk GOF Test**					
2144	1% Shapiro Wilk Critical Value				0.927		Detected Data Not Normal at 1% Significance Level					
2145	Lilliefors Test Statistic				0.301		**Lilliefors GOF Test**					
2146	1% Lilliefors Critical Value				0.151		Detected Data Not Normal at 1% Significance Level					
2147	**Detected Data Not Normal at 1% Significance Level**											
2148												
2149	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2150	KM Mean				0.0449		KM Standard Error of Mean					0.0114
2151	90KM SD				0.0798		95% KM (BCA) UCL					0.0687
2152	95% KM (t) UCL				0.064		95% KM (Percentile Bootstrap) UCL					0.0656
2153	95% KM (z) UCL				0.0636		95% KM Bootstrap t UCL					0.0823
2154	90% KM Chebyshev UCL				0.0791		95% KM Chebyshev UCL					0.0946
2155	97.5% KM Chebyshev UCL				0.116		99% KM Chebyshev UCL					0.158
2156												
2157	**Gamma GOF Tests on Detected Observations Only**											
2158	A-D Test Statistic				2.707		**Anderson-Darling GOF Test**					
2159	5% A-D Critical Value				0.788		Detected Data Not Gamma Distributed at 5% Significance Level					
2160	K-S Test Statistic				0.191		**Kolmogorov-Smirnov GOF**					
2161	5% K-S Critical Value				0.135		Detected Data Not Gamma Distributed at 5% Significance Level					
2162	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2163												
2164	**Gamma Statistics on Detected Data Only**											
2165	k hat (MLE)				0.79		k star (bias corrected MLE)					0.753
2166	Theta hat (MLE)				0.0612		Theta star (bias corrected MLE)					0.0642
2167	nu hat (MLE)				72.68		nu star (bias corrected)					69.27
2168	Mean (detects)				0.0483							
2169												
2170	**Gamma ROS Statistics using Imputed Non-Detects**											
2171	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2172	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2173	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2174	This is especially true when the sample size is small.											

2175	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2176					Minimum	0.005				Mean		0.0453
2177					Maximum	0.45				Median		0.015
2178					SD	0.0804				CV		1.776
2179					k hat (MLE)	0.79				k star (bias corrected MLE)		0.756
2180					Theta hat (MLE)	0.0573				Theta star (bias corrected MLE)		0.0599
2181					nu hat (MLE)	78.97				nu star (bias corrected)		75.57
2182					Adjusted Level of Significance (β)	0.0452						
2183					Approximate Chi Square Value (75.57, α)	56.55				Adjusted Chi Square Value (75.57, β)		56.06
2184					95% Gamma Approximate UCL	0.0605				95% Gamma Adjusted UCL		0.061
2185												
2186	**Estimates of Gamma Parameters using KM Estimates**											
2187					Mean (KM)	0.0449				SD (KM)		0.0798
2188					Variance (KM)	0.00636				SE of Mean (KM)		0.0114
2189					k hat (KM)	0.316				k star (KM)		0.311
2190					nu hat (KM)	31.63				nu star (KM)		31.07
2191					theta hat (KM)	0.142				theta star (KM)		0.144
2192					80% gamma percentile (KM)	0.0694				90% gamma percentile (KM)		0.132
2193					95% gamma percentile (KM)	0.203				99% gamma percentile (KM)		0.387
2194												
2195	**Gamma Kaplan-Meier (KM) Statistics**											
2196					Approximate Chi Square Value (31.07, α)	19.34				Adjusted Chi Square Value (31.07, β)		19.06
2197					95% KM Approximate Gamma UCL	0.0721				95% KM Adjusted Gamma UCL		0.0731
2198												
2199	**Lognormal GOF Test on Detected Observations Only**											
2200					Shapiro Wilk Test Statistic	0.922				**Shapiro Wilk GOF Test**		
2201					10% Shapiro Wilk Critical Value	0.953				Detected Data Not Lognormal at 10% Significance Level		
2202					Lilliefors Test Statistic	0.129				**Lilliefors GOF Test**		
2203					10% Lilliefors Critical Value	0.119				Detected Data Not Lognormal at 10% Significance Level		
2204	**Detected Data Not Lognormal at 10% Significance Level**											
2205												
2206	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2207					Mean in Original Scale	0.0446				Mean in Log Scale		-3.99
2208					SD in Original Scale	0.0807				SD in Log Scale		1.291
2209					95% t UCL (assumes normality of ROS data)	0.0637				95% Percentile Bootstrap UCL		0.0636
2210					95% BCA Bootstrap UCL	0.0682				95% Bootstrap t UCL		0.0805
2211					95% H-UCL (Log ROS)	0.0697						
2212												
2213	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2214					KM Mean (logged)	-3.904				KM Geo Mean		0.0202
2215					KM SD (logged)	1.139				95% Critical H Value (KM-Log)		2.498
2216					KM Standard Error of Mean (logged)	0.163				95% H-UCL (KM -Log)		0.0579
2217					KM SD (logged)	1.139				95% Critical H Value (KM-Log)		2.498
2218					KM Standard Error of Mean (logged)	0.163						
2219												
2220	**DL/2 Statistics**											
2221	**DL/2 Normal**									**DL/2 Log-Transformed**		
2222					Mean in Original Scale	0.0447				Mean in Log Scale		-3.959
2223					SD in Original Scale	0.0807				SD in Log Scale		1.232
2224					95% t UCL (Assumes normality)	0.0638				95% H-Stat UCL		0.0644
2225	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2226												
2227	**Nonparametric Distribution Free UCL Statistics**											
2228	**Data do not follow a Discernible Distribution**											

2229												
2230	**Suggested UCL to Use**											
2231					95% KM (t) UCL	0.064						
2232												
2233	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2234	**Please verify the data were collected from random locations.**											
2235	**If the data were collected using judgmental or other non-random methods,**											
2236	**then contact a statistician to correctly calculate UCLs.**											
2237												
2238	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2239	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2240	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2241												
2242	**AlID_PFOS_SA08**											
2243												
2244	**General Statistics**											
2245					Total Number of Observations	55			Number of Distinct Observations	41		
2246					Number of Detects	48			Number of Non-Detects	7		
2247					Number of Distinct Detects	40			Number of Distinct Non-Detects	1		
2248					Minimum Detect	0.0056			Minimum Non-Detect	0.005		
2249					Maximum Detect	0.83			Maximum Non-Detect	0.005		
2250					Variance Detects	0.0217			Percent Non-Detects	12.73%		
2251					Mean Detects	0.104			SD Detects	0.147		
2252					Median Detects	0.051			CV Detects	1.413		
2253					Skewness Detects	2.992			Kurtosis Detects	11.88		
2254					Mean of Logged Detects	-3.038			SD of Logged Detects	1.285		
2255												
2256	**Normal GOF Test on Detects Only**											
2257					Shapiro Wilk Test Statistic	0.67			**Shapiro Wilk GOF Test**			
2258					1% Shapiro Wilk Critical Value	0.929			Detected Data Not Normal at 1% Significance Level			
2259					Lilliefors Test Statistic	0.251			**Lilliefors GOF Test**			
2260					1% Lilliefors Critical Value	0.148			Detected Data Not Normal at 1% Significance Level			
2261	**Detected Data Not Normal at 1% Significance Level**											
2262												
2263	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2264					KM Mean	0.0917			KM Standard Error of Mean	0.0191		
2265					90KM SD	0.14			95% KM (BCA) UCL	0.125		
2266					95% KM (t) UCL	0.124			95% KM (Percentile Bootstrap) UCL	0.124		
2267					95% KM (z) UCL	0.123			95% KM Bootstrap t UCL	0.139		
2268					90% KM Chebyshev UCL	0.149			95% KM Chebyshev UCL	0.175		
2269					97.5% KM Chebyshev UCL	0.211			99% KM Chebyshev UCL	0.282		
2270												
2271	**Gamma GOF Tests on Detected Observations Only**											
2272					A-D Test Statistic	1.26			**Anderson-Darling GOF Test**			
2273					5% A-D Critical Value	0.791			Detected Data Not Gamma Distributed at 5% Significance Level			
2274					K-S Test Statistic	0.136			**Kolmogorov-Smirnov GOF**			
2275					5% K-S Critical Value	0.133			Detected Data Not Gamma Distributed at 5% Significance Level			
2276	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2277												
2278	**Gamma Statistics on Detected Data Only**											
2279					k hat (MLE)	0.767			k star (bias corrected MLE)	0.733		
2280					Theta hat (MLE)	0.136			Theta star (bias corrected MLE)	0.142		
2281					nu hat (MLE)	73.64			nu star (bias corrected)	70.37		
2282					Mean (detects)	0.104						

	A	B	C	D	E	F	G	H	I	J	K	L
2283												
2284	**Gamma ROS Statistics using Imputed Non-Detects**											
2285	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2286	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2287	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2288	This is especially true when the sample size is small.											
2289	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2290					Minimum	0.0056				Mean	0.0924	
2291					Maximum	0.83				Median	0.031	
2292					SD	0.141				CV	1.529	
2293					k hat (MLE)	0.706				k star (bias corrected MLE)	0.679	
2294					Theta hat (MLE)	0.131				Theta star (bias corrected MLE)	0.136	
2295					nu hat (MLE)	77.64				nu star (bias corrected)	74.74	
2296					Adjusted Level of Significance (β)	0.0456						
2297					Approximate Chi Square Value (74.74, α)	55.83				Adjusted Chi Square Value (74.74, β)	55.39	
2298					95% Gamma Approximate UCL	0.124				95% Gamma Adjusted UCL	0.125	
2299												
2300	**Estimates of Gamma Parameters using KM Estimates**											
2301					Mean (KM)	0.0917				SD (KM)	0.14	
2302					Variance (KM)	0.0197				SE of Mean (KM)	0.0191	
2303					k hat (KM)	0.428				k star (KM)	0.416	
2304					nu hat (KM)	47.03				nu star (KM)	45.8	
2305					theta hat (KM)	0.215				theta star (KM)	0.22	
2306					80% gamma percentile (KM)	0.149				90% gamma percentile (KM)	0.257	
2307					95% gamma percentile (KM)	0.376				99% gamma percentile (KM)	0.673	
2308												
2309	**Gamma Kaplan-Meier (KM) Statistics**											
2310					Approximate Chi Square Value (45.80, α)	31.27				Adjusted Chi Square Value (45.80, β)	30.95	
2311					95% KM Approximate Gamma UCL	0.134				95% KM Adjusted Gamma UCL	0.136	
2312												
2313	**Lognormal GOF Test on Detected Observations Only**											
2314					Shapiro Wilk Test Statistic	0.953				**Shapiro Wilk GOF Test**		
2315					10% Shapiro Wilk Critical Value	0.954				Detected Data Not Lognormal at 10% Significance Level		
2316					Lilliefors Test Statistic	0.101				**Lilliefors GOF Test**		
2317					10% Lilliefors Critical Value	0.117				Detected Data appear Lognormal at 10% Significance Level		
2318	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
2319												
2320	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2321					Mean in Original Scale	0.0914				Mean in Log Scale	-3.415	
2322					SD in Original Scale	0.142				SD in Log Scale	1.568	
2323					95% t UCL (assumes normality of ROS data)	0.123				95% Percentile Bootstrap UCL	0.124	
2324					95% BCA Bootstrap UCL	0.13				95% Bootstrap t UCL	0.136	
2325					95% H-UCL (Log ROS)	0.218						
2326												
2327	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2328					KM Mean (logged)	-3.326				KM Geo Mean	0.036	
2329					KM SD (logged)	1.406				95% Critical H Value (KM-Log)	2.906	
2330					KM Standard Error of Mean (logged)	0.192				95% H-UCL (KM -Log)	0.169	
2331					KM SD (logged)	1.406				95% Critical H Value (KM-Log)	2.906	
2332					KM Standard Error of Mean (logged)	0.192						
2333												
2334	**DL/2 Statistics**											
2335	**DL/2 Normal**									**DL/2 Log-Transformed**		
2336					Mean in Original Scale	0.0914				Mean in Log Scale	-3.414	

2337				SD in Original Scale		0.142				SD in Log Scale		1.557
2338				95% t UCL (Assumes normality)		0.123				95% H-Stat UCL		0.213
2339	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2340												
2341	**Nonparametric Distribution Free UCL Statistics**											
2342	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
2343												
2344	**Suggested UCL to Use**											
2345				KM H-UCL		0.169						
2346												
2347	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2348	**Please verify the data were collected from random locations.**											
2349	**If the data were collected using judgmental or other non-random methods,**											
2350	**then contact a statistician to correctly calculate UCLs.**											
2351												
2352	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2353	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2354	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2355												
2356	**AIID_PFOS_SA10**											
2357												
2358	**General Statistics**											
2359				Total Number of Observations		10				Number of Distinct Observations		4
2360				Number of Detects		3				Number of Non-Detects		7
2361				Number of Distinct Detects		3				Number of Distinct Non-Detects		1
2362				Minimum Detect		0.0053				Minimum Non-Detect		0.005
2363				Maximum Detect		0.13				Maximum Non-Detect		0.005
2364				Variance Detects		0.00389				Percent Non-Detects		70%
2365				Mean Detects		0.0684				SD Detects		0.0624
2366				Median Detects		0.07				CV Detects		0.911
2367				Skewness Detects		-0.113				Kurtosis Detects		N/A
2368				Mean of Logged Detects		-3.313				SD of Logged Detects		1.697
2369												
2370	**Warning: Data set has only 3 Detected Values.**											
2371	**This is not enough to compute meaningful or reliable statistics and estimates.**											
2372												
2373												
2374	**Normal GOF Test on Detects Only**											
2375				Shapiro Wilk Test Statistic		1				**Shapiro Wilk GOF Test**		
2376				1% Shapiro Wilk Critical Value		0.753				Detected Data appear Normal at 1% Significance Level		
2377				Lilliefors Test Statistic		0.178				**Lilliefors GOF Test**		
2378				1% Lilliefors Critical Value		0.429				Detected Data appear Normal at 1% Significance Level		
2379	**Detected Data appear Normal at 1% Significance Level**											
2380	**Note GOF tests may be unreliable for small sample sizes**											
2381												
2382	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2383				KM Mean		0.024				KM Standard Error of Mean		0.0156
2384				90KM SD		0.0403				95% KM (BCA) UCL		N/A
2385				95% KM (t) UCL		0.0526				95% KM (Percentile Bootstrap) UCL		N/A
2386				95% KM (z) UCL		0.0497				95% KM Bootstrap t UCL		N/A
2387				90% KM Chebyshev UCL		0.0708				95% KM Chebyshev UCL		0.092
2388				97.5% KM Chebyshev UCL		0.121				99% KM Chebyshev UCL		0.179
2389												
2390	**Gamma GOF Tests on Detected Observations Only**											

2391					A-D Test Statistic	0.342	**Anderson-Darling GOF Test**					
2392					5% A-D Critical Value	0.642	Detected data appear Gamma Distributed at 5% Significance Level					
2393					K-S Test Statistic	0.312	**Kolmogorov-Smirnov GOF**					
2394					5% K-S Critical Value	0.441	Detected data appear Gamma Distributed at 5% Significance Level					
2395	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2396												
2397	**Gamma Statistics on Detected Data Only**											
2398					k hat (MLE)	0.923	k star (bias corrected MLE)	N/A				
2399					Theta hat (MLE)	0.0741	Theta star (bias corrected MLE)	N/A				
2400					nu hat (MLE)	5.539	nu star (bias corrected)	N/A				
2401					Mean (detects)	0.0684						
2402												
2403	**Gamma ROS Statistics using Imputed Non-Detects**											
2404	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2405	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2406	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2407	This is especially true when the sample size is small.											
2408	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2409					Minimum	0.0053	Mean	0.0275				
2410					Maximum	0.13	Median	0.01				
2411					SD	0.0408	CV	1.48				
2412					k hat (MLE)	0.931	k star (bias corrected MLE)	0.719				
2413					Theta hat (MLE)	0.0296	Theta star (bias corrected MLE)	0.0383				
2414					nu hat (MLE)	18.63	nu star (bias corrected)	14.37				
2415					Adjusted Level of Significance (β)	0.0267						
2416					Approximate Chi Square Value (14.37, α)	6.827	Adjusted Chi Square Value (14.37, β)	5.946				
2417					95% Gamma Approximate UCL	0.058	95% Gamma Adjusted UCL	N/A				
2418												
2419	**Estimates of Gamma Parameters using KM Estimates**											
2420					Mean (KM)	0.024	SD (KM)	0.0403				
2421					Variance (KM)	0.00162	SE of Mean (KM)	0.0156				
2422					k hat (KM)	0.356	k star (KM)	0.316				
2423					nu hat (KM)	7.116	nu star (KM)	6.315				
2424					theta hat (KM)	0.0675	theta star (KM)	0.0761				
2425					80% gamma percentile (KM)	0.0373	90% gamma percentile (KM)	0.0704				
2426					95% gamma percentile (KM)	0.108	99% gamma percentile (KM)	0.205				
2427												
2428	**Gamma Kaplan-Meier (KM) Statistics**											
2429					Approximate Chi Square Value (6.31, α)	1.803	Adjusted Chi Square Value (6.31, β)	1.416				
2430					95% KM Approximate Gamma UCL	0.0842	95% KM Adjusted Gamma UCL	0.107				
2431												
2432	**Lognormal GOF Test on Detected Observations Only**											
2433					Shapiro Wilk Test Statistic	0.889	**Shapiro Wilk GOF Test**					
2434					10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level					
2435					Lilliefors Test Statistic	0.317	**Lilliefors GOF Test**					
2436					10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level					
2437	**Detected Data appear Lognormal at 10% Significance Level**											
2438	**Note GOF tests may be unreliable for small sample sizes**											
2439												
2440	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2441					Mean in Original Scale	0.0207	Mean in Log Scale	-8.067				
2442					SD in Original Scale	0.0442	SD in Log Scale	3.973				
2443					95% t UCL (assumes normality of ROS data)	0.0463	95% Percentile Bootstrap UCL	0.046				
2444					95% BCA Bootstrap UCL	0.0533	95% Bootstrap t UCL	0.558				

2445					95% H-UCL (Log ROS)	718659						
2446												
2447	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2448					KM Mean (logged)	-4.703				KM Geo Mean		0.00907
2449					KM SD (logged)	1.185				95% Critical H Value (KM-Log)		3.495
2450					KM Standard Error of Mean (logged)	0.459				95% H-UCL (KM -Log)		0.0727
2451					KM SD (logged)	1.185				95% Critical H Value (KM-Log)		3.495
2452					KM Standard Error of Mean (logged)	0.459						
2453												
2454	**DL/2 Statistics**											
2455	**DL/2 Normal**						**DL/2 Log-Transformed**					
2456					Mean in Original Scale	0.0223				Mean in Log Scale		-5.188
2457					SD in Original Scale	0.0433				SD in Log Scale		1.521
2458					95% t UCL (Assumes normality)	0.0474				95% H-Stat UCL		0.154
2459	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2460												
2461	**Nonparametric Distribution Free UCL Statistics**											
2462	**Detected Data appear Normal Distributed at 1% Significance Level**											
2463												
2464	**Suggested UCL to Use**											
2465					95% KM (t) UCL	0.0526						
2466												
2467	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2468	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2469	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2470												
2586	**AllD_PFOA_On-base Other**											
2587												
2588	**General Statistics**											
2589					Total Number of Observations	194				Number of Distinct Observations		13
2590					Number of Detects	16				Number of Non-Detects		178
2591					Number of Distinct Detects	12				Number of Distinct Non-Detects		2
2592					Minimum Detect	2.0000E-4				Minimum Non-Detect		2.0000E-4
2593					Maximum Detect	0.48				Maximum Non-Detect		0.005
2594					Variance Detects	0.014				Percent Non-Detects		91.75%
2595					Mean Detects	0.0394				SD Detects		0.119
2596					Median Detects	0.0013				CV Detects		3.009
2597					Skewness Detects	3.886				Kurtosis Detects		15.33
2598					Mean of Logged Detects	-6.021				SD of Logged Detects		2.538
2599												
2600	**Normal GOF Test on Detects Only**											
2601					Shapiro Wilk Test Statistic	0.365	**Shapiro Wilk GOF Test**					
2602					1% Shapiro Wilk Critical Value	0.844	Detected Data Not Normal at 1% Significance Level					
2603					Lilliefors Test Statistic	0.41	**Lilliefors GOF Test**					
2604					1% Lilliefors Critical Value	0.248	Detected Data Not Normal at 1% Significance Level					
2605	**Detected Data Not Normal at 1% Significance Level**											
2606												
2607	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2608					KM Mean	0.00352				KM Standard Error of Mean		0.00257
2609					90KM SD	0.0347				95% KM (BCA) UCL		0.00861
2610					95% KM (t) UCL	0.00777				95% KM (Percentile Bootstrap) UCL		0.00838
2611					95% KM (z) UCL	0.00775				95% KM Bootstrap t UCL		0.0392
2612					90% KM Chebyshev UCL	0.0112				95% KM Chebyshev UCL		0.0147
2613					97.5% KM Chebyshev UCL	0.0196				99% KM Chebyshev UCL		0.0291

	A	B	C	D	E	F	G	H	I	J	K	L
2614												
2615	**Gamma GOF Tests on Detected Observations Only**											
2616	A-D Test Statistic					1.384	**Anderson-Darling GOF Test**					
2617	5% A-D Critical Value					0.859	Detected Data Not Gamma Distributed at 5% Significance Level					
2618	K-S Test Statistic					0.213	**Kolmogorov-Smirnov GOF**					
2619	5% K-S Critical Value					0.235	Detected data appear Gamma Distributed at 5% Significance Level					
2620	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
2621												
2622	**Gamma Statistics on Detected Data Only**											
2623	k hat (MLE)					0.254	k star (bias corrected MLE)					0.248
2624	Theta hat (MLE)					0.155	Theta star (bias corrected MLE)					0.159
2625	nu hat (MLE)					8.133	nu star (bias corrected)					7.942
2626	Mean (detects)					0.0394						
2627												
2628	**Gamma ROS Statistics using Imputed Non-Detects**											
2629	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2630	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2631	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2632	This is especially true when the sample size is small.											
2633	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2634	Minimum					2.0000E-4	Mean					0.0135
2635	Maximum					0.48	Median					0.01
2636	SD					0.0344	CV					2.553
2637	k hat (MLE)					1.523	k star (bias corrected MLE)					1.503
2638	Theta hat (MLE)					0.00884	Theta star (bias corrected MLE)					0.00896
2639	nu hat (MLE)					591	nu star (bias corrected)					583.2
2640	Adjusted Level of Significance (β)					0.0488						
2641	Approximate Chi Square Value (583.20, α)					528.2	Adjusted Chi Square Value (583.20, β)					527.8
2642	95% Gamma Approximate UCL					0.0149	95% Gamma Adjusted UCL					0.0149
2643												
2644	**Estimates of Gamma Parameters using KM Estimates**											
2645	Mean (KM)					0.00352	SD (KM)					0.0347
2646	Variance (KM)					0.0012	SE of Mean (KM)					0.00257
2647	k hat (KM)					0.0103	k star (KM)					0.0136
2648	nu hat (KM)					4.008	nu star (KM)					5.28
2649	theta hat (KM)					0.341	theta star (KM)					0.259
2650	80% gamma percentile (KM)					1.1105E-8	90% gamma percentile (KM)					6.3796E-5
2651	95% gamma percentile (KM)					0.00344	99% gamma percentile (KM)					0.0992
2652												
2653	**Gamma Kaplan-Meier (KM) Statistics**											
2654	Approximate Chi Square Value (5.28, α)					1.284	Adjusted Chi Square Value (5.28, β)					1.269
2655	95% KM Approximate Gamma UCL					0.0145	95% KM Adjusted Gamma UCL					0.0147
2656												
2657	**Lognormal GOF Test on Detected Observations Only**											
2658	Shapiro Wilk Test Statistic					0.871	**Shapiro Wilk GOF Test**					
2659	10% Shapiro Wilk Critical Value					0.906	Detected Data Not Lognormal at 10% Significance Level					
2660	Lilliefors Test Statistic					0.199	**Lilliefors GOF Test**					
2661	10% Lilliefors Critical Value					0.196	Detected Data Not Lognormal at 10% Significance Level					
2662	**Detected Data Not Lognormal at 10% Significance Level**											
2663												
2664	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2665	Mean in Original Scale					0.00356	Mean in Log Scale					-10.53
2666	SD in Original Scale					0.0348	SD in Log Scale					3.166
2667	95% t UCL (assumes normality of ROS data)					0.00768	95% Percentile Bootstrap UCL					0.00843

2668				95% BCA Bootstrap UCL		0.0113				95% Bootstrap t UCL		0.0354
2669				95% H-UCL (Log ROS)		0.0116						
2670												
2671	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2672				KM Mean (logged)		-8.137				KM Geo Mean		2.9250E-4
2673				KM SD (logged)		1.069				95% Critical H Value (KM-Log)		2.235
2674				KM Standard Error of Mean (logged)		0.13				95% H-UCL (KM -Log)		6.1496E-4
2675				KM SD (logged)		1.069				95% Critical H Value (KM-Log)		2.235
2676				KM Standard Error of Mean (logged)		0.13						
2677	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2678												
2679	**DL/2 Statistics**											
2680	**DL/2 Normal**						**DL/2 Log-Transformed**					
2681				Mean in Original Scale		0.00537				Mean in Log Scale		-6.226
2682				SD in Original Scale		0.0346				SD in Log Scale		1.094
2683				95% t UCL (Assumes normality)		0.00947				95% H-Stat UCL		0.0043
2684	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2685												
2686	**Nonparametric Distribution Free UCL Statistics**											
2687	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
2688												
2689	**Suggested UCL to Use**											
2690				95% KM Approximate Gamma UCL		0.0145						
2691												
2692	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2693	**Please verify the data were collected from random locations.**											
2694	**If the data were collected using judgmental or other non-random methods,**											
2695	**then contact a statistician to correctly calculate UCLs.**											
2696												
2697	When a data set follows an approximate distribution passing only one of the GOF tests,											
2698	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2699												
2700	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2701	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2702	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2703												
2704	**AllD_PFOA_SA01**											
2705												
2706	**General Statistics**											
2707				Total Number of Observations		156				Number of Distinct Observations		19
2708				Number of Detects		18				Number of Non-Detects		138
2709				Number of Distinct Detects		18				Number of Distinct Non-Detects		1
2710				Minimum Detect		0.0051				Minimum Non-Detect		0.005
2711				Maximum Detect		0.027				Maximum Non-Detect		0.005
2712				Variance Detects		3.1506E-5				Percent Non-Detects		88.46%
2713				Mean Detects		0.00973				SD Detects		0.00561
2714				Median Detects		0.0076				CV Detects		0.577
2715				Skewness Detects		2.055				Kurtosis Detects		4.53
2716				Mean of Logged Detects		-4.747				SD of Logged Detects		0.459
2717												
2718	**Normal GOF Test on Detects Only**											
2719				Shapiro Wilk Test Statistic		0.754	**Shapiro Wilk GOF Test**					
2720				1% Shapiro Wilk Critical Value		0.858	Detected Data Not Normal at 1% Significance Level					
2721				Lilliefors Test Statistic		0.253	**Lilliefors GOF Test**					

2722	1% Lilliefors Critical Value					0.235	Detected Data Not Normal at 1% Significance Level					
2723	**Detected Data Not Normal at 1% Significance Level**											
2724												
2725	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2726	KM Mean					0.00555	KM Standard Error of Mean					1.9704E-4
2727	90KM SD					0.00239	95% KM (BCA) UCL					0.0059
2728	95% KM (t) UCL					0.00587	95% KM (Percentile Bootstrap) UCL					0.00588
2729	95% KM (z) UCL					0.00587	95% KM Bootstrap t UCL					0.00609
2730	90% KM Chebyshev UCL					0.00614	95% KM Chebyshev UCL					0.00641
2731	97.5% KM Chebyshev UCL					0.00678	99% KM Chebyshev UCL					0.00751
2732												
2733	**Gamma GOF Tests on Detected Observations Only**											
2734	A-D Test Statistic					1.009	**Anderson-Darling GOF Test**					
2735	5% A-D Critical Value					0.743	Detected Data Not Gamma Distributed at 5% Significance Level					
2736	K-S Test Statistic					0.227	**Kolmogorov-Smirnov GOF**					
2737	5% K-S Critical Value					0.204	Detected Data Not Gamma Distributed at 5% Significance Level					
2738	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2739												
2740	**Gamma Statistics on Detected Data Only**											
2741	k hat (MLE)					4.532	k star (bias corrected MLE)					3.814
2742	Theta hat (MLE)					0.00215	Theta star (bias corrected MLE)					0.00255
2743	nu hat (MLE)					163.1	nu star (bias corrected)					137.3
2744	Mean (detects)					0.00973						
2745												
2746	**Gamma ROS Statistics using Imputed Non-Detects**											
2747	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2748	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2749	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2750	This is especially true when the sample size is small.											
2751	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2752	Minimum					0.0051	Mean					0.00997
2753	Maximum					0.027	Median					0.01
2754	SD					0.00186	CV					0.187
2755	k hat (MLE)					37.95	k star (bias corrected MLE)					37.22
2756	Theta hat (MLE)					2.6270E-4	Theta star (bias corrected MLE)					2.6782E-4
2757	nu hat (MLE)					11840	nu star (bias corrected)					11614
2758	Adjusted Level of Significance (β)					0.0485						
2759	Approximate Chi Square Value (N/A, α)					11364	Adjusted Chi Square Value (N/A, β)					11362
2760	95% Gamma Approximate UCL					0.0102	95% Gamma Adjusted UCL					0.0102
2761												
2762	**Estimates of Gamma Parameters using KM Estimates**											
2763	Mean (KM)					0.00555	SD (KM)					0.00239
2764	Variance (KM)					5.7202E-6	SE of Mean (KM)					1.9704E-4
2765	k hat (KM)					5.377	k star (KM)					5.278
2766	nu hat (KM)					1678	nu star (KM)					1647
2767	theta hat (KM)					0.00103	theta star (KM)					0.00105
2768	80% gamma percentile (KM)					0.00741	90% gamma percentile (KM)					0.00878
2769	95% gamma percentile (KM)					0.01	99% gamma percentile (KM)					0.0126
2770												
2771	**Gamma Kaplan-Meier (KM) Statistics**											
2772	Approximate Chi Square Value (N/A, α)					1554	Adjusted Chi Square Value (N/A, β)					1553
2773	95% KM Approximate Gamma UCL					0.00588	95% KM Adjusted Gamma UCL					0.00588
2774												
2775	**Lognormal GOF Test on Detected Observations Only**											

	A	B	C	D	E	F	G	H	I	J	K	L
2776					Shapiro Wilk Test Statistic	0.895	**Shapiro Wilk GOF Test**					
2777					10% Shapiro Wilk Critical Value	0.914	Detected Data Not Lognormal at 10% Significance Level					
2778					Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**					
2779					10% Lilliefors Critical Value	0.185	Detected Data Not Lognormal at 10% Significance Level					
2780	**Detected Data Not Lognormal at 10% Significance Level**											
2781												
2782	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2783					Mean in Original Scale	0.00225	Mean in Log Scale	-6.83				
2784					SD in Original Scale	0.00345	SD in Log Scale	1.231				
2785					95% t UCL (assumes normality of ROS data)	0.00271	95% Percentile Bootstrap UCL	0.00272				
2786					95% BCA Bootstrap UCL	0.00279	95% Bootstrap t UCL	0.00281				
2787					95% H-UCL (Log ROS)	0.00293						
2788												
2789	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2790					KM Mean (logged)	-5.235	KM Geo Mean	0.00533				
2791					KM SD (logged)	0.232	95% Critical H Value (KM-Log)	1.708				
2792					KM Standard Error of Mean (logged)	0.0192	95% H-UCL (KM -Log)	0.00565				
2793					KM SD (logged)	0.232	95% Critical H Value (KM-Log)	1.708				
2794					KM Standard Error of Mean (logged)	0.0192						
2795												
2796	**DL/2 Statistics**											
2797	**DL/2 Normal**						**DL/2 Log-Transformed**					
2798					Mean in Original Scale	0.00333	Mean in Log Scale	-5.848				
2799					SD in Original Scale	0.00297	SD in Log Scale	0.427				
2800					95% t UCL (Assumes normality)	0.00373	95% H-Stat UCL	0.00336				
2801	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2802												
2803	**Nonparametric Distribution Free UCL Statistics**											
2804	**Data do not follow a Discernible Distribution**											
2805												
2806	**Suggested UCL to Use**											
2807					95% KM (t) UCL	0.00587						
2808												
2809	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2810	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2811	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2812												
2813	**AIID_PFOA_SA02**											
2814												
2815	**General Statistics**											
2816					Total Number of Observations	118	Number of Distinct Observations	20				
2817					Number of Detects	19	Number of Non-Detects	99				
2818					Number of Distinct Detects	19	Number of Distinct Non-Detects	1				
2819					Minimum Detect	0.0054	Minimum Non-Detect	0.005				
2820					Maximum Detect	0.16	Maximum Non-Detect	0.005				
2821					Variance Detects	0.00131	Percent Non-Detects	83.9%				
2822					Mean Detects	0.0275	SD Detects	0.0362				
2823					Median Detects	0.018	CV Detects	1.315				
2824					Skewness Detects	3.127	Kurtosis Detects	10.69				
2825					Mean of Logged Detects	-4.035	SD of Logged Detects	0.868				
2826												
2827	**Normal GOF Test on Detects Only**											
2828					Shapiro Wilk Test Statistic	0.581	**Shapiro Wilk GOF Test**					
2829					1% Shapiro Wilk Critical Value	0.863	Detected Data Not Normal at 1% Significance Level					

2830					Lilliefors Test Statistic	0.337	**Lilliefors GOF Test**					
2831					1% Lilliefors Critical Value	0.229	Detected Data Not Normal at 1% Significance Level					
2832	**Detected Data Not Normal at 1% Significance Level**											
2833												
2834	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2835					KM Mean	0.00863	KM Standard Error of Mean	0.00155				
2836					90KM SD	0.0164	95% KM (BCA) UCL	0.0116				
2837					95% KM (t) UCL	0.0112	95% KM (Percentile Bootstrap) UCL	0.0114				
2838					95% KM (z) UCL	0.0112	95% KM Bootstrap t UCL	0.0153				
2839					90% KM Chebyshev UCL	0.0133	95% KM Chebyshev UCL	0.0154				
2840					97.5% KM Chebyshev UCL	0.0183	99% KM Chebyshev UCL	0.024				
2841												
2842	**Gamma GOF Tests on Detected Observations Only**											
2843					A-D Test Statistic	1.073	**Anderson-Darling GOF Test**					
2844					5% A-D Critical Value	0.763	Detected Data Not Gamma Distributed at 5% Significance Level					
2845					K-S Test Statistic	0.217	**Kolmogorov-Smirnov GOF**					
2846					5% K-S Critical Value	0.203	Detected Data Not Gamma Distributed at 5% Significance Level					
2847	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2848												
2849	**Gamma Statistics on Detected Data Only**											
2850					k hat (MLE)	1.271	k star (bias corrected MLE)	1.105				
2851					Theta hat (MLE)	0.0217	Theta star (bias corrected MLE)	0.0249				
2852					nu hat (MLE)	48.28	nu star (bias corrected)	41.99				
2853					Mean (detects)	0.0275						
2854												
2855	**Gamma ROS Statistics using Imputed Non-Detects**											
2856	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2857	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2858	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2859	This is especially true when the sample size is small.											
2860	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2861					Minimum	0.0054	Mean	0.0128				
2862					Maximum	0.16	Median	0.01				
2863					SD	0.0156	CV	1.216				
2864					k hat (MLE)	3.347	k star (bias corrected MLE)	3.268				
2865					Theta hat (MLE)	0.00383	Theta star (bias corrected MLE)	0.00392				
2866					nu hat (MLE)	789.9	nu star (bias corrected)	771.1				
2867					Adjusted Level of Significance (β)	0.048						
2868					Approximate Chi Square Value (771.13, α)	707.7	Adjusted Chi Square Value (771.13, β)	706.9				
2869					95% Gamma Approximate UCL	0.014	95% Gamma Adjusted UCL	0.014				
2870												
2871	**Estimates of Gamma Parameters using KM Estimates**											
2872					Mean (KM)	0.00863	SD (KM)	0.0164				
2873					Variance (KM)	2.6818E-4	SE of Mean (KM)	0.00155				
2874					k hat (KM)	0.277	k star (KM)	0.276				
2875					nu hat (KM)	65.48	nu star (KM)	65.15				
2876					theta hat (KM)	0.0311	theta star (KM)	0.0312				
2877					80% gamma percentile (KM)	0.0129	90% gamma percentile (KM)	0.0257				
2878					95% gamma percentile (KM)	0.0405	99% gamma percentile (KM)	0.0795				
2879												
2880	**Gamma Kaplan-Meier (KM) Statistics**											
2881					Approximate Chi Square Value (65.15, α)	47.58	Adjusted Chi Square Value (65.15, β)	47.39				
2882					95% KM Approximate Gamma UCL	0.0118	95% KM Adjusted Gamma UCL	0.0119				
2883												

2884	**Lognormal GOF Test on Detected Observations Only**											
2885					Shapiro Wilk Test Statistic	0.93	**Shapiro Wilk GOF Test**					
2886					10% Shapiro Wilk Critical Value	0.917	Detected Data appear Lognormal at 10% Significance Level					
2887					Lilliefors Test Statistic	0.14	**Lilliefors GOF Test**					
2888					10% Lilliefors Critical Value	0.18	Detected Data appear Lognormal at 10% Significance Level					
2889	**Detected Data appear Lognormal at 10% Significance Level**											
2890												
2891	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2892					Mean in Original Scale	0.00526	Mean in Log Scale	-7.315				
2893					SD in Original Scale	0.0173	SD in Log Scale	2.147				
2894					95% t UCL (assumes normality of ROS data)	0.0079	95% Percentile Bootstrap UCL	0.00811				
2895					95% BCA Bootstrap UCL	0.00889	95% Bootstrap t UCL	0.0108				
2896					95% H-UCL (Log ROS)	0.0134						
2897												
2898	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2899					KM Mean (logged)	-5.095	KM Geo Mean	0.00613				
2900					KM SD (logged)	0.575	95% Critical H Value (KM-Log)	1.883				
2901					KM Standard Error of Mean (logged)	0.0544	95% H-UCL (KM -Log)	0.00799				
2902					KM SD (logged)	0.575	95% Critical H Value (KM-Log)	1.883				
2903					KM Standard Error of Mean (logged)	0.0544						
2904												
2905	**DL/2 Statistics**											
2906	**DL/2 Normal**						**DL/2 Log-Transformed**					
2907					Mean in Original Scale	0.00653	Mean in Log Scale	-5.676				
2908					SD in Original Scale	0.0169	SD in Log Scale	0.798				
2909					95% t UCL (Assumes normality)	0.00911	95% H-Stat UCL	0.00548				
2910	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2911												
2912	**Nonparametric Distribution Free UCL Statistics**											
2913	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
2914												
2915	**Suggested UCL to Use**											
2916					KM H-UCL	0.00799						
2917												
2918	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2919	**Please verify the data were collected from random locations.**											
2920	**If the data were collected using judgmental or other non-random methods,**											
2921	**then contact a statistician to correctly calculate UCLs.**											
2922												
2923	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2924	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2925	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2926												
2927	**AIID_PFOA_SA03**											
2928												
2929	**General Statistics**											
2930					Total Number of Observations	37	Number of Distinct Observations	1				
2931					Number of Detects	0	Number of Non-Detects	37				
2932					Number of Distinct Detects	0	Number of Distinct Non-Detects	1				
2933												
2934	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
2935	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
2936	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
2937												

2938	**The data set for variable AllD_PFOA_SA03 was not processed!**											
2939												
2940												
2941	**AllD_PFOA_SA04**											
2942												
2943	**General Statistics**											
2944						Total Number of Observations	51			Number of Distinct Observations	21	
2945						Number of Detects	24			Number of Non-Detects	27	
2946						Number of Distinct Detects	20			Number of Distinct Non-Detects	1	
2947						Minimum Detect	0.0054			Minimum Non-Detect	0.005	
2948						Maximum Detect	3.2			Maximum Non-Detect	0.005	
2949						Variance Detects	0.5			Percent Non-Detects	52.94%	
2950						Mean Detects	0.327			SD Detects	0.707	
2951						Median Detects	0.056			CV Detects	2.162	
2952						Skewness Detects	3.48			Kurtosis Detects	12.8	
2953						Mean of Logged Detects	-2.544			SD of Logged Detects	1.72	
2954												
2955	**Normal GOF Test on Detects Only**											
2956						Shapiro Wilk Test Statistic	0.484			**Shapiro Wilk GOF Test**		
2957						1% Shapiro Wilk Critical Value	0.884			Detected Data Not Normal at 1% Significance Level		
2958						Lilliefors Test Statistic	0.359			**Lilliefors GOF Test**		
2959						1% Lilliefors Critical Value	0.205			Detected Data Not Normal at 1% Significance Level		
2960	**Detected Data Not Normal at 1% Significance Level**											
2961												
2962	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2963						KM Mean	0.157			KM Standard Error of Mean	0.0717	
2964						90KM SD	0.501			95% KM (BCA) UCL	0.293	
2965						95% KM (t) UCL	0.277			95% KM (Percentile Bootstrap) UCL	0.283	
2966						95% KM (z) UCL	0.274			95% KM Bootstrap t UCL	0.606	
2967						90% KM Chebyshev UCL	0.372			95% KM Chebyshev UCL	0.469	
2968						97.5% KM Chebyshev UCL	0.604			99% KM Chebyshev UCL	0.87	
2969												
2970	**Gamma GOF Tests on Detected Observations Only**											
2971						A-D Test Statistic	1.304			**Anderson-Darling GOF Test**		
2972						5% A-D Critical Value	0.817			Detected Data Not Gamma Distributed at 5% Significance Level		
2973						K-S Test Statistic	0.209			**Kolmogorov-Smirnov GOF**		
2974						5% K-S Critical Value	0.189			Detected Data Not Gamma Distributed at 5% Significance Level		
2975	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2976												
2977	**Gamma Statistics on Detected Data Only**											
2978						k hat (MLE)	0.452			k star (bias corrected MLE)	0.424	
2979						Theta hat (MLE)	0.723			Theta star (bias corrected MLE)	0.772	
2980						nu hat (MLE)	21.71			nu star (bias corrected)	20.33	
2981						Mean (detects)	0.327					
2982												
2983	**Gamma ROS Statistics using Imputed Non-Detects**											
2984	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2985	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2986	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2987	This is especially true when the sample size is small.											
2988	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2989						Minimum	0.0054			Mean	0.159	
2990						Maximum	3.2			Median	0.01	
2991						SD	0.505			CV	3.175	

2992					k hat (MLE)	0.371				k star (bias corrected MLE)		0.362
2993					Theta hat (MLE)	0.429				Theta star (bias corrected MLE)		0.44
2994					nu hat (MLE)	37.8				nu star (bias corrected)		36.91
2995					Adjusted Level of Significance (β)	0.0453						
2996					Approximate Chi Square Value (36.91, α)	24.01				Adjusted Chi Square Value (36.91, β)		23.7
2997					95% Gamma Approximate UCL	0.245				95% Gamma Adjusted UCL		0.248
2998												
2999					**Estimates of Gamma Parameters using KM Estimates**							
3000					Mean (KM)	0.157				SD (KM)		0.501
3001					Variance (KM)	0.251				SE of Mean (KM)		0.0717
3002					k hat (KM)	0.0975				k star (KM)		0.105
3003					nu hat (KM)	9.948				nu star (KM)		10.7
3004					theta hat (KM)	1.605				theta star (KM)		1.493
3005					80% gamma percentile (KM)	0.116				90% gamma percentile (KM)		0.424
3006					95% gamma percentile (KM)	0.906				99% gamma percentile (KM)		2.428
3007												
3008					**Gamma Kaplan-Meier (KM) Statistics**							
3009					Approximate Chi Square Value (10.70, α)	4.381				Adjusted Chi Square Value (10.70, β)		4.264
3010					95% KM Approximate Gamma UCL	0.382				95% KM Adjusted Gamma UCL		0.393
3011												
3012					**Lognormal GOF Test on Detected Observations Only**							
3013					Shapiro Wilk Test Statistic	0.953				**Shapiro Wilk GOF Test**		
3014					10% Shapiro Wilk Critical Value	0.93				Detected Data appear Lognormal at 10% Significance Level		
3015					Lilliefors Test Statistic	0.114				**Lilliefors GOF Test**		
3016					10% Lilliefors Critical Value	0.162				Detected Data appear Lognormal at 10% Significance Level		
3017					**Detected Data appear Lognormal at 10% Significance Level**							
3018												
3019					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3020					Mean in Original Scale	0.155				Mean in Log Scale		-5.142
3021					SD in Original Scale	0.507				SD in Log Scale		3.023
3022					95% t UCL (assumes normality of ROS data)	0.274				95% Percentile Bootstrap UCL		0.283
3023					95% BCA Bootstrap UCL	0.333				95% Bootstrap t UCL		0.583
3024					95% H-UCL (Log ROS)	4.738						
3025												
3026					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3027					KM Mean (logged)	-4.002				KM Geo Mean		0.0183
3028					KM SD (logged)	1.796				95% Critical H Value (KM-Log)		3.26
3029					KM Standard Error of Mean (logged)	0.257				95% H-UCL (KM -Log)		0.21
3030					KM SD (logged)	1.796				95% Critical H Value (KM-Log)		3.26
3031					KM Standard Error of Mean (logged)	0.257						
3032												
3033					**DL/2 Statistics**							
3034					**DL/2 Normal**					**DL/2 Log-Transformed**		
3035					Mean in Original Scale	0.155				Mean in Log Scale		-4.369
3036					SD in Original Scale	0.507				SD in Log Scale		2.093
3037					95% t UCL (Assumes normality)	0.274				95% H-Stat UCL		0.334
3038					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3039												
3040					**Nonparametric Distribution Free UCL Statistics**							
3041					**Detected Data appear Lognormal Distributed at 10% Significance Level**							
3042												
3043					**Suggested UCL to Use**							
3044					KM H-UCL	0.21						
3045												

3046	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3047	**Please verify the data were collected from random locations.**											
3048	**If the data were collected using judgmental or other non-random methods,**											
3049	**then contact a statistician to correctly calculate UCLs.**											
3050												
3051	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3052	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3053	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3054												
3055	**AllD_PFOA_SA05**											
3056												
3057	**General Statistics**											
3058	Total Number of Observations	47					Number of Distinct Observations	8				
3059	Number of Detects	7					Number of Non-Detects	40				
3060	Number of Distinct Detects	7					Number of Distinct Non-Detects	1				
3061	Minimum Detect	0.0075					Minimum Non-Detect	0.005				
3062	Maximum Detect	0.39					Maximum Non-Detect	0.005				
3063	Variance Detects	0.0193					Percent Non-Detects	85.11%				
3064	Mean Detects	0.0779					SD Detects	0.139				
3065	Median Detects	0.021					CV Detects	1.782				
3066	Skewness Detects	2.548					Kurtosis Detects	6.58				
3067	Mean of Logged Detects	-3.463					SD of Logged Detects	1.297				
3068												
3069	**Normal GOF Test on Detects Only**											
3070	Shapiro Wilk Test Statistic	0.565					**Shapiro Wilk GOF Test**					
3071	1% Shapiro Wilk Critical Value	0.73					Detected Data Not Normal at 1% Significance Level					
3072	Lilliefors Test Statistic	0.394					**Lilliefors GOF Test**					
3073	1% Lilliefors Critical Value	0.35					Detected Data Not Normal at 1% Significance Level					
3074	**Detected Data Not Normal at 1% Significance Level**											
3075												
3076	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3077	KM Mean	0.0159					KM Standard Error of Mean	0.00882				
3078	90KM SD	0.056					95% KM (BCA) UCL	0.0312				
3079	95% KM (t) UCL	0.0307					95% KM (Percentile Bootstrap) UCL	0.0317				
3080	95% KM (z) UCL	0.0304					95% KM Bootstrap t UCL	0.118				
3081	90% KM Chebyshev UCL	0.0423					95% KM Chebyshev UCL	0.0543				
3082	97.5% KM Chebyshev UCL	0.071					99% KM Chebyshev UCL	0.104				
3083												
3084	**Gamma GOF Tests on Detected Observations Only**											
3085	A-D Test Statistic	0.824					**Anderson-Darling GOF Test**					
3086	5% A-D Critical Value	0.741					Detected Data Not Gamma Distributed at 5% Significance Level					
3087	K-S Test Statistic	0.302					**Kolmogorov-Smirnov GOF**					
3088	5% K-S Critical Value	0.324					Detected data appear Gamma Distributed at 5% Significance Level					
3089	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
3090	**Note GOF tests may be unreliable for small sample sizes**											
3091												
3092	**Gamma Statistics on Detected Data Only**											
3093	k hat (MLE)	0.668					k star (bias corrected MLE)	0.477				
3094	Theta hat (MLE)	0.117					Theta star (bias corrected MLE)	0.163				
3095	nu hat (MLE)	9.351					nu star (bias corrected)	6.676				
3096	Mean (detects)	0.0779										
3097												
3098	**Gamma ROS Statistics using Imputed Non-Detects**											
3099	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

3100	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3101	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3102	This is especially true when the sample size is small.											
3103	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3104					Minimum	0.0075				Mean	0.0201	
3105					Maximum	0.39				Median	0.01	
3106					SD	0.0558				CV	2.774	
3107					k hat (MLE)	1.082				k star (bias corrected MLE)	1.027	
3108					Theta hat (MLE)	0.0186				Theta star (bias corrected MLE)	0.0196	
3109					nu hat (MLE)	101.7				nu star (bias corrected)	96.52	
3110					Adjusted Level of Significance (β)	0.0449						
3111					Approximate Chi Square Value (96.52, α)	74.86				Adjusted Chi Square Value (96.52, β)	74.26	
3112					95% Gamma Approximate UCL	0.0259				95% Gamma Adjusted UCL	0.0261	
3113												
3114	**Estimates of Gamma Parameters using KM Estimates**											
3115					Mean (KM)	0.0159				SD (KM)	0.056	
3116					Variance (KM)	0.00314				SE of Mean (KM)	0.00882	
3117					k hat (KM)	0.0802				k star (KM)	0.0893	
3118					nu hat (KM)	7.539				nu star (KM)	8.391	
3119					theta hat (KM)	0.198				theta star (KM)	0.178	
3120					80% gamma percentile (KM)	0.00921				90% gamma percentile (KM)	0.04	
3121					95% gamma percentile (KM)	0.0924				99% gamma percentile (KM)	0.266	
3122												
3123	**Gamma Kaplan-Meier (KM) Statistics**											
3124					Approximate Chi Square Value (8.39, α)	2.964				Adjusted Chi Square Value (8.39, β)	2.862	
3125					95% KM Approximate Gamma UCL	0.0449				95% KM Adjusted Gamma UCL	0.0465	
3126	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
3127												
3128	**Lognormal GOF Test on Detected Observations Only**											
3129					Shapiro Wilk Test Statistic	0.892				**Shapiro Wilk GOF Test**		
3130					10% Shapiro Wilk Critical Value	0.838				Detected Data appear Lognormal at 10% Significance Level		
3131					Lilliefors Test Statistic	0.218				**Lilliefors GOF Test**		
3132					10% Lilliefors Critical Value	0.28				Detected Data appear Lognormal at 10% Significance Level		
3133	**Detected Data appear Lognormal at 10% Significance Level**											
3134	**Note GOF tests may be unreliable for small sample sizes**											
3135												
3136	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3137					Mean in Original Scale	0.012				Mean in Log Scale	-9.104	
3138					SD in Original Scale	0.0574				SD in Log Scale	3.575	
3139					95% t UCL (assumes normality of ROS data)	0.026				95% Percentile Bootstrap UCL	0.028	
3140					95% BCA Bootstrap UCL	0.0374				95% Bootstrap t UCL	0.113	
3141					95% H-UCL (Log ROS)	1.485						
3142												
3143	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3144					KM Mean (logged)	-5.025				KM Geo Mean	0.00657	
3145					KM SD (logged)	0.801				95% Critical H Value (KM-Log)	2.131	
3146					KM Standard Error of Mean (logged)	0.126				95% H-UCL (KM -Log)	0.0117	
3147					KM SD (logged)	0.801				95% Critical H Value (KM-Log)	2.131	
3148					KM Standard Error of Mean (logged)	0.126						
3149	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3150												
3151	**DL/2 Statistics**											
3152	**DL/2 Normal**									**DL/2 Log-Transformed**		
3153					Mean in Original Scale	0.0137				Mean in Log Scale	-5.615	

3154				SD in Original Scale		0.057					SD in Log Scale	1.023
3155				95% t UCL (Assumes normality)		0.0277					95% H-Stat UCL	0.00878
3156	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3157												
3158	**Nonparametric Distribution Free UCL Statistics**											
3159	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
3160												
3161	**Suggested UCL to Use**											
3162				95% KM Adjusted Gamma UCL		0.0465						
3163												
3164	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3165	**Please verify the data were collected from random locations.**											
3166	**If the data were collected using judgmental or other non-random methods,**											
3167	**then contact a statistician to correctly calculate UCLs.**											
3168												
3169	When a data set follows an approximate distribution passing only one of the GOF tests,											
3170	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
3171												
3172	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3173	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3174	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3175												
3176	**AllD_PFOA_SA06**											
3177												
3178	**General Statistics**											
3179				Total Number of Observations		65					Number of Distinct Observations	7
3180				Number of Detects		6					Number of Non-Detects	59
3181				Number of Distinct Detects		6					Number of Distinct Non-Detects	1
3182				Minimum Detect		4.0000E-4					Minimum Non-Detect	0.005
3183				Maximum Detect		0.73					Maximum Non-Detect	0.005
3184				Variance Detects		0.0859					Percent Non-Detects	90.77%
3185				Mean Detects		0.132					SD Detects	0.293
3186				Median Detects		0.00995					CV Detects	2.218
3187				Skewness Detects		2.44					Kurtosis Detects	5.962
3188				Mean of Logged Detects		-4.3					SD of Logged Detects	2.459
3189												
3190	**Normal GOF Test on Detects Only**											
3191				Shapiro Wilk Test Statistic		0.532					**Shapiro Wilk GOF Test**	
3192				1% Shapiro Wilk Critical Value		0.713					Detected Data Not Normal at 1% Significance Level	
3193				Lilliefors Test Statistic		0.462					**Lilliefors GOF Test**	
3194				1% Lilliefors Critical Value		0.373					Detected Data Not Normal at 1% Significance Level	
3195	**Detected Data Not Normal at 1% Significance Level**											
3196												
3197	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3198				KM Mean		0.0126					KM Standard Error of Mean	0.0122
3199				90KM SD		0.0898					95% KM (BCA) UCL	0.0395
3200				95% KM (t) UCL		0.0329					95% KM (Percentile Bootstrap) UCL	0.0357
3201				95% KM (z) UCL		0.0326					95% KM Bootstrap t UCL	0.527
3202				90% KM Chebyshev UCL		0.0492					95% KM Chebyshev UCL	0.0657
3203				97.5% KM Chebyshev UCL		0.0888					99% KM Chebyshev UCL	0.134
3204												
3205	**Gamma GOF Tests on Detected Observations Only**											
3206				A-D Test Statistic		0.654					**Anderson-Darling GOF Test**	
3207				5% A-D Critical Value		0.766					Detected data appear Gamma Distributed at 5% Significance Level	

3208					K-S Test Statistic	0.319	**Kolmogorov-Smirnov GOF**					
3209					5% K-S Critical Value	0.357	Detected data appear Gamma Distributed at 5% Significance Level					
3210	**Detected data appear Gamma Distributed at 5% Significance Level**											
3211	**Note GOF tests may be unreliable for small sample sizes**											
3212												
3213	**Gamma Statistics on Detected Data Only**											
3214					k hat (MLE)	0.302	k star (bias corrected MLE)	0.262				
3215					Theta hat (MLE)	0.437	Theta star (bias corrected MLE)	0.504				
3216					nu hat (MLE)	3.63	nu star (bias corrected)	3.148				
3217					Mean (detects)	0.132						
3218												
3219	**Gamma ROS Statistics using Imputed Non-Detects**											
3220	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3221	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3222	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3223	This is especially true when the sample size is small.											
3224	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3225					Minimum	4.0000E-4	Mean	0.0214				
3226					Maximum	0.73	Median	0.01				
3227					SD	0.0893	CV	4.173				
3228					k hat (MLE)	0.818	k star (bias corrected MLE)	0.79				
3229					Theta hat (MLE)	0.0262	Theta star (bias corrected MLE)	0.0271				
3230					nu hat (MLE)	106.3	nu star (bias corrected)	102.8				
3231					Adjusted Level of Significance (β)	0.0463						
3232					Approximate Chi Square Value (102.76, α)	80.37	Adjusted Chi Square Value (102.76, β)	79.92				
3233					95% Gamma Approximate UCL	0.0274	95% Gamma Adjusted UCL	0.0275				
3234												
3235	**Estimates of Gamma Parameters using KM Estimates**											
3236					Mean (KM)	0.0126	SD (KM)	0.0898				
3237					Variance (KM)	0.00806	SE of Mean (KM)	0.0122				
3238					k hat (KM)	0.0196	k star (KM)	0.0289				
3239					nu hat (KM)	2.544	nu star (KM)	3.759				
3240					theta hat (KM)	0.642	theta star (KM)	0.434				
3241					80% gamma percentile (KM)	1.1127E-4	90% gamma percentile (KM)	0.00663				
3242					95% gamma percentile (KM)	0.0469	99% gamma percentile (KM)	0.327				
3243												
3244	**Gamma Kaplan-Meier (KM) Statistics**											
3245					Approximate Chi Square Value (3.76, α)	0.629	Adjusted Chi Square Value (3.76, β)	0.602				
3246					95% KM Approximate Gamma UCL	0.0751	95% KM Adjusted Gamma UCL	0.0784				
3247												
3248	**Lognormal GOF Test on Detected Observations Only**											
3249					Shapiro Wilk Test Statistic	0.951	**Shapiro Wilk GOF Test**					
3250					10% Shapiro Wilk Critical Value	0.826	Detected Data appear Lognormal at 10% Significance Level					
3251					Lilliefors Test Statistic	0.218	**Lilliefors GOF Test**					
3252					10% Lilliefors Critical Value	0.298	Detected Data appear Lognormal at 10% Significance Level					
3253	**Detected Data appear Lognormal at 10% Significance Level**											
3254	**Note GOF tests may be unreliable for small sample sizes**											
3255												
3256	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3257					Mean in Original Scale	0.0131	Mean in Log Scale	-8.228				
3258					SD in Original Scale	0.0904	SD in Log Scale	2.533				
3259					95% t UCL (assumes normality of ROS data)	0.0318	95% Percentile Bootstrap UCL	0.0353				
3260					95% BCA Bootstrap UCL	0.0472	95% Bootstrap t UCL	0.467				
3261					95% H-UCL (Log ROS)	0.0185						

3262												
3263	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3264					KM Mean (logged)	-7.499			KM Geo Mean	5.5375E-4		
3265					KM SD (logged)	1.227			95% Critical H Value (KM-Log)	2.203		
3266					KM Standard Error of Mean (logged)	0.167			95% H-UCL (KM -Log)	0.00165		
3267					KM SD (logged)	1.227			95% Critical H Value (KM-Log)	2.203		
3268					KM Standard Error of Mean (logged)	0.167						
3269	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3270												
3271	**DL/2 Statistics**											
3272	**DL/2 Normal**						**DL/2 Log-Transformed**					
3273					Mean in Original Scale	0.0145			Mean in Log Scale	-5.835		
3274					SD in Original Scale	0.0902			SD in Log Scale	0.846		
3275					95% t UCL (Assumes normality)	0.0331			95% H-Stat UCL	0.00524		
3276	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3277												
3278	**Nonparametric Distribution Free UCL Statistics**											
3279	**Detected Data appear Gamma Distributed at 5% Significance Level**											
3280												
3281	**Suggested UCL to Use**											
3282					95% KM Approximate Gamma UCL	0.0751						
3283												
3284	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3285	**Please verify the data were collected from random locations.**											
3286	**If the data were collected using judgmental or other non-random methods,**											
3287	**then contact a statistician to correctly calculate UCLs.**											
3288												
3289	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3290	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3291	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3292												
3293	**AllD_PFOA_SA07**											
3294												
3295	**General Statistics**											
3296					Total Number of Observations	50			Number of Distinct Observations	1		
3297					Number of Detects	0			Number of Non-Detects	50		
3298					Number of Distinct Detects	0			Number of Distinct Non-Detects	1		
3299												
3300	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
3301	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
3302	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
3303												
3304	**The data set for variable AllD_PFOA_SA07 was not processed!**											
3305												
3306												
3307	**AllD_PFOA_SA08**											
3308												
3309	**General Statistics**											
3310					Total Number of Observations	55			Number of Distinct Observations	11		
3311					Number of Detects	10			Number of Non-Detects	45		
3312					Number of Distinct Detects	10			Number of Distinct Non-Detects	1		
3313					Minimum Detect	0.006			Minimum Non-Detect	0.005		
3314					Maximum Detect	0.021			Maximum Non-Detect	0.005		
3315					Variance Detects	2.0952E-5			Percent Non-Detects	81.82%		

3316					Mean Detects	0.00965					SD Detects	0.00458
3317					Median Detects	0.00745					CV Detects	0.474
3318					Skewness Detects	1.977					Kurtosis Detects	4.184
3319					Mean of Logged Detects	-4.718					SD of Logged Detects	0.39
3320												
3321					**Normal GOF Test on Detects Only**							
3322					Shapiro Wilk Test Statistic	0.761			**Shapiro Wilk GOF Test**			
3323					1% Shapiro Wilk Critical Value	0.781			Detected Data Not Normal at 1% Significance Level			
3324					Lilliefors Test Statistic	0.265			**Lilliefors GOF Test**			
3325					1% Lilliefors Critical Value	0.304			Detected Data appear Normal at 1% Significance Level			
3326					**Detected Data appear Approximate Normal at 1% Significance Level**							
3327												
3328					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
3329					KM Mean	0.00585			KM Standard Error of Mean	3.6639E-4		
3330					90KM SD	0.00258			95% KM (BCA) UCL	0.00649		
3331					95% KM (t) UCL	0.00646			95% KM (Percentile Bootstrap) UCL	0.00646		
3332					95% KM (z) UCL	0.00645			95% KM Bootstrap t UCL	0.00698		
3333					90% KM Chebyshev UCL	0.00694			95% KM Chebyshev UCL	0.00744		
3334					97.5% KM Chebyshev UCL	0.00813			99% KM Chebyshev UCL	0.00949		
3335												
3336					**Gamma GOF Tests on Detected Observations Only**							
3337					A-D Test Statistic	0.719			**Anderson-Darling GOF Test**			
3338					5% A-D Critical Value	0.728			Detected data appear Gamma Distributed at 5% Significance Level			
3339					K-S Test Statistic	0.265			**Kolmogorov-Smirnov GOF**			
3340					5% K-S Critical Value	0.267			Detected data appear Gamma Distributed at 5% Significance Level			
3341					**Detected data appear Gamma Distributed at 5% Significance Level**							
3342												
3343					**Gamma Statistics on Detected Data Only**							
3344					k hat (MLE)	6.616			k star (bias corrected MLE)	4.698		
3345					Theta hat (MLE)	0.00146			Theta star (bias corrected MLE)	0.00205		
3346					nu hat (MLE)	132.3			nu star (bias corrected)	93.95		
3347					Mean (detects)	0.00965						
3348												
3349					**Gamma ROS Statistics using Imputed Non-Detects**							
3350					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
3351					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
3352					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
3353					This is especially true when the sample size is small.							
3354					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
3355					Minimum	0.006			Mean	0.00994		
3356					Maximum	0.021			Median	0.01		
3357					SD	0.00187			CV	0.189		
3358					k hat (MLE)	35.43			k star (bias corrected MLE)	33.51		
3359					Theta hat (MLE)	2.8048E-4			Theta star (bias corrected MLE)	2.9655E-4		
3360					nu hat (MLE)	3897			nu star (bias corrected)	3686		
3361					Adjusted Level of Significance (β)	0.0456						
3362					Approximate Chi Square Value (N/A, α)	3546			Adjusted Chi Square Value (N/A, β)	3542		
3363					95% Gamma Approximate UCL	0.0103			95% Gamma Adjusted UCL	0.0103		
3364												
3365					**Estimates of Gamma Parameters using KM Estimates**							
3366					Mean (KM)	0.00585			SD (KM)	0.00258		
3367					Variance (KM)	6.6450E-6			SE of Mean (KM)	3.6639E-4		
3368					k hat (KM)	5.142			k star (KM)	4.874		
3369					nu hat (KM)	565.6			nu star (KM)	536.1		

	A	B	C	D	E	F	G	H	I	J	K	L
3370					theta hat (KM)	0.00114					theta star (KM)	0.0012
3371					80% gamma percentile (KM)	0.00788					90% gamma percentile (KM)	0.00939
3372					95% gamma percentile (KM)	0.0108					99% gamma percentile (KM)	0.0137
3373												
3374					**Gamma Kaplan-Meier (KM) Statistics**							
3375					Approximate Chi Square Value (536.11, α)	483.4					Adjusted Chi Square Value (536.11, β)	482.1
3376					95% KM Approximate Gamma UCL	0.00648					95% KM Adjusted Gamma UCL	0.0065
3377												
3378					**Lognormal GOF Test on Detected Observations Only**							
3379					Shapiro Wilk Test Statistic	0.866			**Shapiro Wilk GOF Test**			
3380					10% Shapiro Wilk Critical Value	0.869			Detected Data Not Lognormal at 10% Significance Level			
3381					Lilliefors Test Statistic	0.248			**Lilliefors GOF Test**			
3382					10% Lilliefors Critical Value	0.241			Detected Data Not Lognormal at 10% Significance Level			
3383					**Detected Data Not Lognormal at 10% Significance Level**							
3384												
3385					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3386					Mean in Original Scale	0.00334					Mean in Log Scale	-6.167
3387					SD in Original Scale	0.00372					SD in Log Scale	0.985
3388					95% t UCL (assumes normality of ROS data)	0.00418					95% Percentile Bootstrap UCL	0.00423
3389					95% BCA Bootstrap UCL	0.00433					95% Bootstrap t UCL	0.00444
3390					95% H-UCL (Log ROS)	0.00464						
3391												
3392					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3393					KM Mean (logged)	-5.193					KM Geo Mean	0.00556
3394					KM SD (logged)	0.274					95% Critical H Value (KM-Log)	1.712
3395					KM Standard Error of Mean (logged)	0.0389					95% H-UCL (KM -Log)	0.00615
3396					KM SD (logged)	0.274					95% Critical H Value (KM-Log)	1.712
3397					KM Standard Error of Mean (logged)	0.0389						
3398												
3399					**DL/2 Statistics**							
3400					**DL/2 Normal**				**DL/2 Log-Transformed**			
3401					Mean in Original Scale	0.0038					Mean in Log Scale	-5.76
3402					SD in Original Scale	0.00335					SD in Log Scale	0.521
3403					95% t UCL (Assumes normality)	0.00456					95% H-Stat UCL	0.00413
3404					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3405												
3406					**Nonparametric Distribution Free UCL Statistics**							
3407					**Detected Data appear Approximate Normal Distributed at 1% Significance Level**							
3408												
3409					**Suggested UCL to Use**							
3410					95% KM (t) UCL	0.00646						
3411												
3412					When a data set follows an approximate distribution passing only one of the GOF tests,							
3413					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
3414												
3415					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3416					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3417					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3418												
3419	**AIID_PFOA_SA10**											
3420												
3421					**General Statistics**							
3422					Total Number of Observations	10					Number of Distinct Observations	1
3423					Number of Detects	0					Number of Non-Detects	10

	A	B	C	D	E	F	G	H	I	J	K	L
3424					Number of Distinct Detects	0				Number of Distinct Non-Detects		1
3425												
3426	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
3427	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
3428	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
3429												
3430	**The data set for variable AllD_PFOA_SA10 was not processed!**											
3431												
3432												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 4/12/2025 3:51:24 PM
From File	WorkSheet_b.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

PFOS+PFHxS_RAAF_Lake

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	1.39	Mean	84.86
Maximum	460	Median	31.2
SD	113.6	Std. Error of Mean	25.4
Coefficient of Variation	1.338	Skewness	2.315

Normal GOF Test

Shapiro Wilk Test Statistic	0.668	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.317	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	128.8	95% Adjusted-CLT UCL (Chen-1995)	140.7
		95% Modified-t UCL (Johnson-1978)	131

Gamma GOF Test

A-D Test Statistic	1.074	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.775	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.222	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.201	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.854	k star (bias corrected MLE)	0.759
Theta hat (MLE)	99.36	Theta star (bias corrected MLE)	111.8
nu hat (MLE)	34.16	nu star (bias corrected)	30.37
MLE Mean (bias corrected)	84.86	MLE Sd (bias corrected)	97.39
		Approximate Chi Square Value (0.05)	18.79
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	18.07

Assuming Gamma Distribution

95% Approximate Gamma UCL	137.2	95% Adjusted Gamma UCL	142.7

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.919	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.171	**Lilliefors Lognormal GOF Test**

55				10% Lilliefors Critical Value		0.176		Data appear Lognormal at 10% Significance Level				
56	**Data appear Approximate Lognormal at 10% Significance Level**											
57												
58	**Lognormal Statistics**											
59				Minimum of Logged Data		0.329		Mean of logged Data				3.752
60				Maximum of Logged Data		6.131		SD of logged Data				1.272
61												
62	**Assuming Lognormal Distribution**											
63				95% H-UCL		233		90% Chebyshev (MVUE) UCL				178.5
64				95% Chebyshev (MVUE) UCL		218.8		97.5% Chebyshev (MVUE) UCL				274.7
65				99% Chebyshev (MVUE) UCL		384.5						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution**											
69												
70	**Nonparametric Distribution Free UCLs**											
71				95% CLT UCL		126.6		95% BCA Bootstrap UCL				140
72				95% Standard Bootstrap UCL		126		95% Bootstrap-t UCL				165.8
73				95% Hall's Bootstrap UCL		147.5		95% Percentile Bootstrap UCL				127.6
74				90% Chebyshev(Mean, Sd) UCL		161.1		95% Chebyshev(Mean, Sd) UCL				195.6
75				97.5% Chebyshev(Mean, Sd) UCL		243.5		99% Chebyshev(Mean, Sd) UCL				337.6
76												
77	**Suggested UCL to Use**											
78				95% H-UCL		233						
79												
80	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
81	**Please verify the data were collected from random locations.**											
82	**If the data were collected using judgmental or other non-random methods,**											
83	**then contact a statistician to correctly calculate UCLs.**											
84												
85	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
86	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												
89												
90	**PFOS+PFHxS_PPB**											
91												
92	**General Statistics**											
93				Total Number of Observations		22		Number of Distinct Observations				22
94								Number of Missing Observations				0
95				Minimum		0.0043		Mean				0.0428
96				Maximum		0.146		Median				0.026
97				SD		0.038		Std. Error of Mean				0.00809
98				Coefficient of Variation		0.887		Skewness				1.197
99												
100	**Normal GOF Test**											
101				Shapiro Wilk Test Statistic		0.864		**Shapiro Wilk GOF Test**				
102				1% Shapiro Wilk Critical Value		0.878		Data Not Normal at 1% Significance Level				
103				Lilliefors Test Statistic		0.207		**Lilliefors GOF Test**				
104				1% Lilliefors Critical Value		0.214		Data appear Normal at 1% Significance Level				
105	**Data appear Approximate Normal at 1% Significance Level**											
106												
107	**Assuming Normal Distribution**											
108	**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**				

109				95% Student's-t UCL		0.0567				95% Adjusted-CLT UCL (Chen-1995)		0.0583
110										95% Modified-t UCL (Johnson-1978)		0.0571
111												
112					**Gamma GOF Test**							
113				A-D Test Statistic		0.356				**Anderson-Darling Gamma GOF Test**		
114				5% A-D Critical Value		0.762				Detected data appear Gamma Distributed at 5% Significance Level		
115				K-S Test Statistic		0.125				**Kolmogorov-Smirnov Gamma GOF Test**		
116				5% K-S Critical Value		0.189				Detected data appear Gamma Distributed at 5% Significance Level		
117					**Detected data appear Gamma Distributed at 5% Significance Level**							
118												
119					**Gamma Statistics**							
120				k hat (MLE)		1.356				k star (bias corrected MLE)		1.201
121				Theta hat (MLE)		0.0316				Theta star (bias corrected MLE)		0.0356
122				nu hat (MLE)		59.66				nu star (bias corrected)		52.86
123				MLE Mean (bias corrected)		0.0428				MLE Sd (bias corrected)		0.0391
124										Approximate Chi Square Value (0.05)		37.16
125				Adjusted Level of Significance		0.0386				Adjusted Chi Square Value		36.17
126												
127					**Assuming Gamma Distribution**							
128				95% Approximate Gamma UCL		0.0609				95% Adjusted Gamma UCL		0.0626
129												
130					**Lognormal GOF Test**							
131				Shapiro Wilk Test Statistic		0.97				**Shapiro Wilk Lognormal GOF Test**		
132				10% Shapiro Wilk Critical Value		0.926				Data appear Lognormal at 10% Significance Level		
133				Lilliefors Test Statistic		0.114				**Lilliefors Lognormal GOF Test**		
134				10% Lilliefors Critical Value		0.169				Data appear Lognormal at 10% Significance Level		
135					**Data appear Lognormal at 10% Significance Level**							
136												
137					**Lognormal Statistics**							
138				Minimum of Logged Data		-5.449				Mean of logged Data		-3.563
139				Maximum of Logged Data		-1.924				SD of logged Data		0.979
140												
141					**Assuming Lognormal Distribution**							
142				95% H-UCL		0.0791				90% Chebyshev (MVUE) UCL		0.0757
143				95% Chebyshev (MVUE) UCL		0.0898				97.5% Chebyshev (MVUE) UCL		0.109
144				99% Chebyshev (MVUE) UCL		0.148						
145												
146					**Nonparametric Distribution Free UCL Statistics**							
147					**Data appear to follow a Discernible Distribution**							
148												
149					**Nonparametric Distribution Free UCLs**							
150				95% CLT UCL		0.0561				95% BCA Bootstrap UCL		0.0576
151				95% Standard Bootstrap UCL		0.0557				95% Bootstrap-t UCL		0.0601
152				95% Hall's Bootstrap UCL		0.0594				95% Percentile Bootstrap UCL		0.056
153				90% Chebyshev(Mean, Sd) UCL		0.0671				95% Chebyshev(Mean, Sd) UCL		0.0781
154				97.5% Chebyshev(Mean, Sd) UCL		0.0934				99% Chebyshev(Mean, Sd) UCL		0.123
155												
156					**Suggested UCL to Use**							
157				95% Student's-t UCL		0.0567						
158												
159					When a data set follows an approximate distribution passing only one of the GOF tests,							
160					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
161												
162					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							

163	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
164	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
165												
166	**PFOS+PFHxS_Drains**											
167												
168	**General Statistics**											
169	Total Number of Observations					73	Number of Distinct Observations					67
170	Number of Detects					69	Number of Non-Detects					4
171	Number of Distinct Detects					65	Number of Distinct Non-Detects					2
172	Minimum Detect					0.02	Minimum Non-Detect					5.0000E-4
173	Maximum Detect					241	Maximum Non-Detect					0.005
174	Variance Detects					1262	Percent Non-Detects					5.479%
175	Mean Detects					14.48	SD Detects					35.52
176	Median Detects					1.61	CV Detects					2.453
177	Skewness Detects					4.862	Kurtosis Detects					27.24
178	Mean of Logged Detects					0.644	SD of Logged Detects					2.327
179												
180	**Normal GOF Test on Detects Only**											
181	Shapiro Wilk Test Statistic					0.446	**Normal GOF Test on Detected Observations Only**					
182	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
183	Lilliefors Test Statistic					0.342	**Lilliefors GOF Test**					
184	1% Lilliefors Critical Value					0.123	Detected Data Not Normal at 1% Significance Level					
185	**Detected Data Not Normal at 1% Significance Level**											
186												
187	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
188	KM Mean					13.69	KM Standard Error of Mean					4.06
189	90KM SD					34.44	95% KM (BCA) UCL					21.22
190	95% KM (t) UCL					20.45	95% KM (Percentile Bootstrap) UCL					21.03
191	95% KM (z) UCL					20.37	95% KM Bootstrap t UCL					27.93
192	90% KM Chebyshev UCL					25.87	95% KM Chebyshev UCL					31.39
193	97.5% KM Chebyshev UCL					39.04	99% KM Chebyshev UCL					54.09
194												
195	**Gamma GOF Tests on Detected Observations Only**											
196	A-D Test Statistic					1.84	**Anderson-Darling GOF Test**					
197	5% A-D Critical Value					0.857	Detected Data Not Gamma Distributed at 5% Significance Level					
198	K-S Test Statistic					0.145	**Kolmogorov-Smirnov GOF**					
199	5% K-S Critical Value					0.116	Detected Data Not Gamma Distributed at 5% Significance Level					
200	**Detected Data Not Gamma Distributed at 5% Significance Level**											
201												
202	**Gamma Statistics on Detected Data Only**											
203	k hat (MLE)					0.334	k star (bias corrected MLE)					0.329
204	Theta hat (MLE)					43.37	Theta star (bias corrected MLE)					44.01
205	nu hat (MLE)					46.08	nu star (bias corrected)					45.41
206	Mean (detects)					14.48						
207												
208	**Gamma ROS Statistics using Imputed Non-Detects**											
209	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
210	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
211	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
212	This is especially true when the sample size is small.											
213	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
214	Minimum					0.01	Mean					13.69
215	Maximum					241	Median					1.48
216	SD					34.68	CV					2.533

217					k hat (MLE)	0.304				k star (bias corrected MLE)		0.301
218					Theta hat (MLE)	44.98				Theta star (bias corrected MLE)		45.48
219					nu hat (MLE)	44.43				nu star (bias corrected)		43.94
220					Adjusted Level of Significance (β)	0.0467						
221					Approximate Chi Square Value (43.94, α)	29.74				Adjusted Chi Square Value (43.94, β)		29.5
222					95% Gamma Approximate UCL	20.23				95% Gamma Adjusted UCL		20.39
223												
224	**Estimates of Gamma Parameters using KM Estimates**											
225					Mean (KM)	13.69				SD (KM)		34.44
226					Variance (KM)	1186				SE of Mean (KM)		4.06
227					k hat (KM)	0.158				k star (KM)		0.161
228					nu hat (KM)	23.07				nu star (KM)		23.45
229					theta hat (KM)	86.64				theta star (KM)		85.22
230					80% gamma percentile (KM)	15.72				90% gamma percentile (KM)		40.93
231					95% gamma percentile (KM)	74.3				99% gamma percentile (KM)		169.8
232												
233	**Gamma Kaplan-Meier (KM) Statistics**											
234					Approximate Chi Square Value (23.45, α)	13.43				Adjusted Chi Square Value (23.45, β)		13.28
235					95% KM Approximate Gamma UCL	23.9				95% KM Adjusted Gamma UCL		24.17
236												
237	**Lognormal GOF Test on Detected Observations Only**											
238					Shapiro Wilk Approximate Test Statistic	0.962	**Shapiro Wilk GOF Test**					
239					10% Shapiro Wilk P Value	0.101	Detected Data appear Lognormal at 10% Significance Level					
240					Lilliefors Test Statistic	0.0721	**Lilliefors GOF Test**					
241					10% Lilliefors Critical Value	0.0975	Detected Data appear Lognormal at 10% Significance Level					
242	**Detected Data appear Lognormal at 10% Significance Level**											
243												
244	**Lognormal ROS Statistics Using Imputed Non-Detects**											
245					Mean in Original Scale	13.69				Mean in Log Scale		0.343
246					SD in Original Scale	34.68				SD in Log Scale		2.59
247					95% t UCL (assumes normality of ROS data)	20.45				95% Percentile Bootstrap UCL		20.6
248					95% BCA Bootstrap UCL	23.2				95% Bootstrap t UCL		27.25
249					95% H-UCL (Log ROS)	144.9						
250												
251	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
252					KM Mean (logged)	0.192				KM Geo Mean		1.212
253					KM SD (logged)	2.927				95% Critical H Value (KM-Log)		4.652
254					KM Standard Error of Mean (logged)	0.345				95% H-UCL (KM -Log)		436.6
255					KM SD (logged)	2.927				95% Critical H Value (KM-Log)		4.652
256					KM Standard Error of Mean (logged)	0.345						
257												
258	**DL/2 Statistics**											
259	**DL/2 Normal**						**DL/2 Log-Transformed**					
260					Mean in Original Scale	13.69				Mean in Log Scale		0.249
261					SD in Original Scale	34.68				SD in Log Scale		2.811
262					95% t UCL (Assumes normality)	20.45				95% H-Stat UCL		294.9
263	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
264												
265	**Nonparametric Distribution Free UCL Statistics**											
266	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
267												
268	**Suggested UCL to Use**											
269					KM H-UCL	436.6						
270	**Warning: Recommended UCL exceeds the maximum observation**											

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,

then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

PFOS_RAAF_Lake

General Statistics

Total Number of Observations	20	Number of Distinct Observations	19
		Number of Missing Observations	0
Minimum	1.1	Mean	26.54
Maximum	150	Median	6.325
SD	42.3	Std. Error of Mean	9.459
Coefficient of Variation	1.594	Skewness	2.227

Normal GOF Test

Shapiro Wilk Test Statistic	0.634	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.293	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	42.89	95% Adjusted-CLT UCL (Chen-1995)	47.13
		95% Modified-t UCL (Johnson-1978)	43.68

Gamma GOF Test

A-D Test Statistic	1.1	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.794	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.209	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.204	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.594	k star (bias corrected MLE)	0.538
Theta hat (MLE)	44.66	Theta star (bias corrected MLE)	49.29
nu hat (MLE)	23.77	nu star (bias corrected)	21.53
MLE Mean (bias corrected)	26.54	MLE Sd (bias corrected)	36.17
		Approximate Chi Square Value (0.05)	11.99
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	11.43

Assuming Gamma Distribution

95% Approximate Gamma UCL	47.66	95% Adjusted Gamma UCL	50

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.936	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.92	Data appear Lognormal at 10% Significance Level

325				Lilliefors Test Statistic		0.168	**Lilliefors Lognormal GOF Test**					
326				10% Lilliefors Critical Value		0.176	Data appear Lognormal at 10% Significance Level					
327	**Data appear Lognormal at 10% Significance Level**											
328												
329	**Lognormal Statistics**											
330				Minimum of Logged Data		0.0953				Mean of logged Data		2.237
331				Maximum of Logged Data		5.011				SD of logged Data		1.471
332												
333	**Assuming Lognormal Distribution**											
334				95% H-UCL		86.49				90% Chebyshev (MVUE) UCL		54.5
335				95% Chebyshev (MVUE) UCL		67.85				97.5% Chebyshev (MVUE) UCL		86.37
336				99% Chebyshev (MVUE) UCL		122.8						
337												
338	**Nonparametric Distribution Free UCL Statistics**											
339	**Data appear to follow a Discernible Distribution**											
340												
341	**Nonparametric Distribution Free UCLs**											
342				95% CLT UCL		42.09				95% BCA Bootstrap UCL		46.03
343				95% Standard Bootstrap UCL		41.69				95% Bootstrap-t UCL		60.91
344				95% Hall's Bootstrap UCL		105.2				95% Percentile Bootstrap UCL		42.09
345				90% Chebyshev(Mean, Sd) UCL		54.91				95% Chebyshev(Mean, Sd) UCL		67.77
346				97.5% Chebyshev(Mean, Sd) UCL		85.61				99% Chebyshev(Mean, Sd) UCL		120.6
347												
348	**Suggested UCL to Use**											
349				95% H-UCL		86.49						
350												
351	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
352	**Please verify the data were collected from random locations.**											
353	**If the data were collected using judgmental or other non-random methods,**											
354	**then contact a statistician to correctly calculate UCLs.**											
355												
356	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
357	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
358	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
359												
360												
361	**PFOS_PPB**											
362												
363	**General Statistics**											
364				Total Number of Observations		22				Number of Distinct Observations		19
365										Number of Missing Observations		0
366				Minimum		0.0033				Mean		0.027
367				Maximum		0.1				Median		0.0185
368				SD		0.023				Std. Error of Mean		0.00491
369				Coefficient of Variation		0.852				Skewness		1.624
370												
371	**Normal GOF Test**											
372				Shapiro Wilk Test Statistic		0.842	**Shapiro Wilk GOF Test**					
373				1% Shapiro Wilk Critical Value		0.878	Data Not Normal at 1% Significance Level					
374				Lilliefors Test Statistic		0.181	**Lilliefors GOF Test**					
375				1% Lilliefors Critical Value		0.214	Data appear Normal at 1% Significance Level					
376	**Data appear Approximate Normal at 1% Significance Level**											
377												
378	**Assuming Normal Distribution**											

379	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
380				95% Student's-t UCL		0.0354				95% Adjusted-CLT UCL (Chen-1995)		0.0369
381										95% Modified-t UCL (Johnson-1978)		0.0357
382												
383	**Gamma GOF Test**											
384				A-D Test Statistic		0.334	**Anderson-Darling Gamma GOF Test**					
385				5% A-D Critical Value		0.758	Detected data appear Gamma Distributed at 5% Significance Level					
386				K-S Test Statistic		0.123	**Kolmogorov-Smirnov Gamma GOF Test**					
387				5% K-S Critical Value		0.188	Detected data appear Gamma Distributed at 5% Significance Level					
388	**Detected data appear Gamma Distributed at 5% Significance Level**											
389												
390	**Gamma Statistics**											
391				k hat (MLE)		1.545	k star (bias corrected MLE)					1.365
392				Theta hat (MLE)		0.0175	Theta star (bias corrected MLE)					0.0198
393				nu hat (MLE)		68	nu star (bias corrected)					60.06
394				MLE Mean (bias corrected)		0.027	MLE Sd (bias corrected)					0.0231
395							Approximate Chi Square Value (0.05)					43.24
396				Adjusted Level of Significance		0.0386	Adjusted Chi Square Value					42.17
397												
398	**Assuming Gamma Distribution**											
399				95% Approximate Gamma UCL		0.0375	95% Adjusted Gamma UCL					0.0385
400												
401	**Lognormal GOF Test**											
402				Shapiro Wilk Test Statistic		0.965	**Shapiro Wilk Lognormal GOF Test**					
403				10% Shapiro Wilk Critical Value		0.926	Data appear Lognormal at 10% Significance Level					
404				Lilliefors Test Statistic		0.149	**Lilliefors Lognormal GOF Test**					
405				10% Lilliefors Critical Value		0.169	Data appear Lognormal at 10% Significance Level					
406	**Data appear Lognormal at 10% Significance Level**											
407												
408	**Lognormal Statistics**											
409				Minimum of Logged Data		-5.714	Mean of logged Data					-3.969
410				Maximum of Logged Data		-2.303	SD of logged Data					0.912
411												
412	**Assuming Lognormal Distribution**											
413				95% H-UCL		0.0468	90% Chebyshev (MVUE) UCL					0.046
414				95% Chebyshev (MVUE) UCL		0.0542	97.5% Chebyshev (MVUE) UCL					0.0656
415				99% Chebyshev (MVUE) UCL		0.0879						
416												
417	**Nonparametric Distribution Free UCL Statistics**											
418	**Data appear to follow a Discernible Distribution**											
419												
420	**Nonparametric Distribution Free UCLs**											
421				95% CLT UCL		0.0351	95% BCA Bootstrap UCL					0.0364
422				95% Standard Bootstrap UCL		0.0348	95% Bootstrap-t UCL					0.038
423				95% Hall's Bootstrap UCL		0.0408	95% Percentile Bootstrap UCL					0.0351
424				90% Chebyshev(Mean, Sd) UCL		0.0417	95% Chebyshev(Mean, Sd) UCL					0.0484
425				97.5% Chebyshev(Mean, Sd) UCL		0.0576	99% Chebyshev(Mean, Sd) UCL					0.0758
426												
427	**Suggested UCL to Use**											
428				95% Student's-t UCL		0.0354						
429												
430	When a data set follows an approximate distribution passing only one of the GOF tests,											
431	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
432												

433	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
434	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
435	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
436												
437	**PFOS_Drains**											
438												
439	**General Statistics**											
440						Total Number of Observations	73				Number of Distinct Observations	58	
441						Number of Detects	69				Number of Non-Detects	4
442						Number of Distinct Detects	56				Number of Distinct Non-Detects	2
443						Minimum Detect	0.02				Minimum Non-Detect	5.0000E-4
444						Maximum Detect	200				Maximum Non-Detect	0.005
445						Variance Detects	782.8				Percent Non-Detects	5.479%
446						Mean Detects	9.423				SD Detects	27.98
447						Median Detects	1.3				CV Detects	2.969
448						Skewness Detects	5.712				Kurtosis Detects	35.37
449						Mean of Logged Detects	0.244				SD of Logged Detects	2.221
450												
451	**Normal GOF Test on Detects Only**											
452						Shapiro Wilk Test Statistic	0.351				**Normal GOF Test on Detected Observations Only**	
453						1% Shapiro Wilk P Value	0				Detected Data Not Normal at 1% Significance Level	
454						Lilliefors Test Statistic	0.368				**Lilliefors GOF Test**	
455						1% Lilliefors Critical Value	0.123				Detected Data Not Normal at 1% Significance Level	
456	**Detected Data Not Normal at 1% Significance Level**											
457												
458	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
459						KM Mean	8.906				KM Standard Error of Mean	3.194
460						90KM SD	27.09				95% KM (BCA) UCL	14.92
461						95% KM (t) UCL	14.23				95% KM (Percentile Bootstrap) UCL	14.56
462						95% KM (z) UCL	14.16				95% KM Bootstrap t UCL	26.88
463						90% KM Chebyshev UCL	18.49				95% KM Chebyshev UCL	22.83
464						97.5% KM Chebyshev UCL	28.85				99% KM Chebyshev UCL	40.68
465												
466	**Gamma GOF Tests on Detected Observations Only**											
467						A-D Test Statistic	2.155				**Anderson-Darling GOF Test**	
468						5% A-D Critical Value	0.856				Detected Data Not Gamma Distributed at 5% Significance Level	
469						K-S Test Statistic	0.13				**Kolmogorov-Smirnov GOF**	
470						5% K-S Critical Value	0.116				Detected Data Not Gamma Distributed at 5% Significance Level	
471	**Detected Data Not Gamma Distributed at 5% Significance Level**											
472												
473	**Gamma Statistics on Detected Data Only**											
474						k hat (MLE)	0.338				k star (bias corrected MLE)	0.333
475						Theta hat (MLE)	27.86				Theta star (bias corrected MLE)	28.28
476						nu hat (MLE)	46.68				nu star (bias corrected)	45.98
477						Mean (detects)	9.423					
478												
479	**Gamma ROS Statistics using Imputed Non-Detects**											
480	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
481	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
482	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
483	This is especially true when the sample size is small.											
484	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
485						Minimum	0.01				Mean	8.907
486						Maximum	200				Median	1.15

487					SD	27.28					CV	3.062
488					k hat (MLE)	0.311					k star (bias corrected MLE)	0.307
489					Theta hat (MLE)	28.69					Theta star (bias corrected MLE)	29.02
490					nu hat (MLE)	45.33					nu star (bias corrected)	44.8
491					Adjusted Level of Significance (β)	0.0467						
492					Approximate Chi Square Value (44.80, α)	30.45					Adjusted Chi Square Value (44.80, β)	30.21
493					95% Gamma Approximate UCL	13.11					95% Gamma Adjusted UCL	13.21
494												
495					**Estimates of Gamma Parameters using KM Estimates**							
496					Mean (KM)	8.906					SD (KM)	27.09
497					Variance (KM)	733.8					SE of Mean (KM)	3.194
498					k hat (KM)	0.108					k star (KM)	0.113
499					nu hat (KM)	15.78					nu star (KM)	16.47
500					theta hat (KM)	82.39					theta star (KM)	78.97
501					80% gamma percentile (KM)	7.26					90% gamma percentile (KM)	24.77
502					95% gamma percentile (KM)	51.19					99% gamma percentile (KM)	133.1
503												
504					**Gamma Kaplan-Meier (KM) Statistics**							
505					Approximate Chi Square Value (16.47, α)	8.292					Adjusted Chi Square Value (16.47, β)	8.175
506					95% KM Approximate Gamma UCL	17.69					95% KM Adjusted Gamma UCL	17.94
507												
508					**Lognormal GOF Test on Detected Observations Only**							
509					Shapiro Wilk Approximate Test Statistic	0.957					**Shapiro Wilk GOF Test**	
510					10% Shapiro Wilk P Value	0.052					Detected Data Not Lognormal at 10% Significance Level	
511					Lilliefors Test Statistic	0.115					**Lilliefors GOF Test**	
512					10% Lilliefors Critical Value	0.0975					Detected Data Not Lognormal at 10% Significance Level	
513					**Detected Data Not Lognormal at 10% Significance Level**							
514												
515					**Lognormal ROS Statistics Using Imputed Non-Detects**							
516					Mean in Original Scale	8.907					Mean in Log Scale	-0.0422
517					SD in Original Scale	27.28					SD in Log Scale	2.47
518					95% t UCL (assumes normality of ROS data)	14.23					95% Percentile Bootstrap UCL	14.42
519					95% BCA Bootstrap UCL	17.24					95% Bootstrap t UCL	26.06
520					95% H-UCL (Log ROS)	65.45						
521												
522					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
523					KM Mean (logged)	-0.186					KM Geo Mean	0.831
524					KM SD (logged)	2.789					95% Critical H Value (KM-Log)	4.463
525					KM Standard Error of Mean (logged)	0.329					95% H-UCL (KM -Log)	176.2
526					KM SD (logged)	2.789					95% Critical H Value (KM-Log)	4.463
527					KM Standard Error of Mean (logged)	0.329						
528												
529					**DL/2 Statistics**							
530					**DL/2 Normal**						**DL/2 Log-Transformed**	
531					Mean in Original Scale	8.906					Mean in Log Scale	-0.129
532					SD in Original Scale	27.28					SD in Log Scale	2.674
533					95% t UCL (Assumes normality)	14.23					95% H-Stat UCL	121.7
534					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
535												
536					**Nonparametric Distribution Free UCL Statistics**							
537					**Data do not follow a Discernible Distribution**							
538												
539					**Suggested UCL to Use**							
540					95% KM (t) UCL	14.23						

541												
542	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
543	**Please verify the data were collected from random locations.**											
544	**If the data were collected using judgmental or other non-random methods,**											
545	**then contact a statistician to correctly calculate UCLs.**											
546												
547	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
548	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
549	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
550												
551												
552	**PFOA_RAAF_Lake**											
553												
554	**General Statistics**											
555	Total Number of Observations				20			Number of Distinct Observations				19
556								Number of Missing Observations				0
557	Minimum				0.01			Mean				3.238
558	Maximum				22			Median				0.915
559	SD				5.284			Std. Error of Mean				1.182
560	Coefficient of Variation				1.632			Skewness				2.7
561												
562	**Normal GOF Test**											
563	Shapiro Wilk Test Statistic				0.618			**Shapiro Wilk GOF Test**				
564	1% Shapiro Wilk Critical Value				0.868			Data Not Normal at 1% Significance Level				
565	Lilliefors Test Statistic				0.307			**Lilliefors GOF Test**				
566	1% Lilliefors Critical Value				0.223			Data Not Normal at 1% Significance Level				
567	**Data Not Normal at 1% Significance Level**											
568												
569	**Assuming Normal Distribution**											
570	**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**				
571	95% Student's-t UCL				5.281			95% Adjusted-CLT UCL (Chen-1995)				5.943
572								95% Modified-t UCL (Johnson-1978)				5.399
573												
574	**Gamma GOF Test**											
575	A-D Test Statistic				0.781			**Anderson-Darling Gamma GOF Test**				
576	5% A-D Critical Value				0.796			Detected data appear Gamma Distributed at 5% Significance Level				
577	K-S Test Statistic				0.203			**Kolmogorov-Smirnov Gamma GOF Test**				
578	5% K-S Critical Value				0.204			Detected data appear Gamma Distributed at 5% Significance Level				
579	**Detected data appear Gamma Distributed at 5% Significance Level**											
580												
581	**Gamma Statistics**											
582	k hat (MLE)				0.569			k star (bias corrected MLE)				0.517
583	Theta hat (MLE)				5.693			Theta star (bias corrected MLE)				6.265
584	nu hat (MLE)				22.75			nu star (bias corrected)				20.67
585	MLE Mean (bias corrected)				3.238			MLE Sd (bias corrected)				4.504
586								Approximate Chi Square Value (0.05)				11.35
587	Adjusted Level of Significance				0.038			Adjusted Chi Square Value				10.8
588												
589	**Assuming Gamma Distribution**											
590	95% Approximate Gamma UCL				5.898			95% Adjusted Gamma UCL				6.195
591												
592	**Lognormal GOF Test**											
593	Shapiro Wilk Test Statistic				0.938			**Shapiro Wilk Lognormal GOF Test**				
594	10% Shapiro Wilk Critical Value				0.92			Data appear Lognormal at 10% Significance Level				

595					Lilliefors Test Statistic	0.125	**Lilliefors Lognormal GOF Test**					
596					10% Lilliefors Critical Value	0.176	Data appear Lognormal at 10% Significance Level					
597	**Data appear Lognormal at 10% Significance Level**											
598												
599	**Lognormal Statistics**											
600					Minimum of Logged Data	-4.605				Mean of logged Data		0.0796
601					Maximum of Logged Data	3.091				SD of logged Data		1.707
602												
603	**Assuming Lognormal Distribution**											
604					95% H-UCL	20.43				90% Chebyshev (MVUE) UCL		9.552
605					95% Chebyshev (MVUE) UCL	12.07				97.5% Chebyshev (MVUE) UCL		15.57
606					99% Chebyshev (MVUE) UCL	22.44						
607												
608	**Nonparametric Distribution Free UCL Statistics**											
609	**Data appear to follow a Discernible Distribution**											
610												
611	**Nonparametric Distribution Free UCLs**											
612					95% CLT UCL	5.181				95% BCA Bootstrap UCL		5.883
613					95% Standard Bootstrap UCL	5.151				95% Bootstrap-t UCL		7.493
614					95% Hall's Bootstrap UCL	8.599				95% Percentile Bootstrap UCL		5.298
615					90% Chebyshev(Mean, Sd) UCL	6.782				95% Chebyshev(Mean, Sd) UCL		8.388
616					97.5% Chebyshev(Mean, Sd) UCL	10.62				99% Chebyshev(Mean, Sd) UCL		14.99
617												
618	**Suggested UCL to Use**											
619					95% Adjusted Gamma UCL	6.195						
620												
621	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
622	**Please verify the data were collected from random locations.**											
623	**If the data were collected using judgmental or other non-random methods,**											
624	**then contact a statistician to correctly calculate UCLs.**											
625												
626	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
627	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
628	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
629												
630	**PFOA_PPB**											
631												
632	**General Statistics**											
633					Total Number of Observations	22				Number of Distinct Observations		8
634					Number of Detects	19				Number of Non-Detects		3
635					Number of Distinct Detects	7				Number of Distinct Non-Detects		1
636					Minimum Detect	0.001				Minimum Non-Detect		5.0000E-4
637					Maximum Detect	0.008				Maximum Non-Detect		5.0000E-4
638					Variance Detects	4.3860E-6				Percent Non-Detects		13.64%
639					Mean Detects	0.00295				SD Detects		0.00209
640					Median Detects	0.002				CV Detects		0.711
641					Skewness Detects	1.091				Kurtosis Detects		0.218
642					Mean of Logged Detects	-6.054				SD of Logged Detects		0.69
643												
644	**Normal GOF Test on Detects Only**											
645					Shapiro Wilk Test Statistic	0.829	**Shapiro Wilk GOF Test**					
646					1% Shapiro Wilk Critical Value	0.863	Detected Data Not Normal at 1% Significance Level					
647					Lilliefors Test Statistic	0.306	**Lilliefors GOF Test**					
648					1% Lilliefors Critical Value	0.229	Detected Data Not Normal at 1% Significance Level					

	A	B	C	D	E	F	G	H	I	J	K	L
649	**Detected Data Not Normal at 1% Significance Level**											
650												
651	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
652	KM Mean					0.00261	KM Standard Error of Mean					4.5390E-4
653	90KM SD					0.00207	95% KM (BCA) UCL					0.00343
654	95% KM (t) UCL					0.00339	95% KM (Percentile Bootstrap) UCL					0.00339
655	95% KM (z) UCL					0.00336	95% KM Bootstrap t UCL					0.00356
656	90% KM Chebyshev UCL					0.00398	95% KM Chebyshev UCL					0.00459
657	97.5% KM Chebyshev UCL					0.00545	99% KM Chebyshev UCL					0.00713
658												
659	**Gamma GOF Tests on Detected Observations Only**											
660	A-D Test Statistic					0.977	**Anderson-Darling GOF Test**					
661	5% A-D Critical Value					0.751	Detected Data Not Gamma Distributed at 5% Significance Level					
662	K-S Test Statistic					0.262	**Kolmogorov-Smirnov GOF**					
663	5% K-S Critical Value					0.201	Detected Data Not Gamma Distributed at 5% Significance Level					
664	**Detected Data Not Gamma Distributed at 5% Significance Level**											
665												
666	**Gamma Statistics on Detected Data Only**											
667	k hat (MLE)					2.353	k star (bias corrected MLE)					2.017
668	Theta hat (MLE)					0.00125	Theta star (bias corrected MLE)					0.00146
669	nu hat (MLE)					89.41	nu star (bias corrected)					76.63
670	Mean (detects)					0.00295						
671												
672	**Gamma ROS Statistics using Imputed Non-Detects**											
673	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
674	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
675	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
676	This is especially true when the sample size is small.											
677	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
678	Minimum					0.001	Mean					0.00391
679	Maximum					0.01	Median					0.002
680	SD					0.00315	CV					0.805
681	k hat (MLE)					1.75	k star (bias corrected MLE)					1.542
682	Theta hat (MLE)					0.00223	Theta star (bias corrected MLE)					0.00254
683	nu hat (MLE)					77.01	nu star (bias corrected)					67.84
684	Adjusted Level of Significance (β)					0.0386						
685	Approximate Chi Square Value (67.84, α)					49.88	Adjusted Chi Square Value (67.84, β)					48.74
686	95% Gamma Approximate UCL					0.00532	95% Gamma Adjusted UCL					0.00544
687												
688	**Estimates of Gamma Parameters using KM Estimates**											
689	Mean (KM)					0.00261	SD (KM)					0.00207
690	Variance (KM)					4.2939E-6	SE of Mean (KM)					4.5390E-4
691	k hat (KM)					1.591	k star (KM)					1.404
692	nu hat (KM)					70	nu star (KM)					61.79
693	theta hat (KM)					0.00164	theta star (KM)					0.00186
694	80% gamma percentile (KM)					0.00407	90% gamma percentile (KM)					0.00553
695	95% gamma percentile (KM)					0.00696	99% gamma percentile (KM)					0.0102
696												
697	**Gamma Kaplan-Meier (KM) Statistics**											
698	Approximate Chi Square Value (61.79, α)					44.71	Adjusted Chi Square Value (61.79, β)					43.62
699	95% KM Approximate Gamma UCL					0.00361	95% KM Adjusted Gamma UCL					0.0037
700												
701	**Lognormal GOF Test on Detected Observations Only**											
702	Shapiro Wilk Test Statistic					0.888	**Shapiro Wilk GOF Test**					

703					10% Shapiro Wilk Critical Value	0.917	Detected Data Not Lognormal at 10% Significance Level					
704					Lilliefors Test Statistic	0.224	**Lilliefors GOF Test**					
705					10% Lilliefors Critical Value	0.18	Detected Data Not Lognormal at 10% Significance Level					
706	**Detected Data Not Lognormal at 10% Significance Level**											
707												
708	**Lognormal ROS Statistics Using Imputed Non-Detects**											
709					Mean in Original Scale	0.00261	Mean in Log Scale	-6.27				
710					SD in Original Scale	0.00212	SD in Log Scale	0.851				
711					95% t UCL (assumes normality of ROS data)	0.00339	95% Percentile Bootstrap UCL	0.00336				
712					95% BCA Bootstrap UCL	0.00348	95% Bootstrap t UCL	0.00358				
713					95% H-UCL (Log ROS)	0.00423						
714												
715	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
716					KM Mean (logged)	-6.265	KM Geo Mean	0.0019				
717					KM SD (logged)	0.819	95% Critical H Value (KM-Log)	2.345				
718					KM Standard Error of Mean (logged)	0.179	95% H-UCL (KM -Log)	0.00405				
719					KM SD (logged)	0.819	95% Critical H Value (KM-Log)	2.345				
720					KM Standard Error of Mean (logged)	0.179						
721												
722	**DL/2 Statistics**											
723	**DL/2 Normal**						**DL/2 Log-Transformed**					
724					Mean in Original Scale	0.00258	Mean in Log Scale	-6.36				
725					SD in Original Scale	0.00216	SD in Log Scale	1.014				
726					95% t UCL (Assumes normality)	0.00337	95% H-Stat UCL	0.00514				
727	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
728												
729	**Nonparametric Distribution Free UCL Statistics**											
730	**Data do not follow a Discernible Distribution**											
731												
732	**Suggested UCL to Use**											
733					95% KM (t) UCL	0.00339						
734												
735	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
736	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
737	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
738												
739	**PFOA_Drains**											
740												
741	**General Statistics**											
742					Total Number of Observations	73	Number of Distinct Observations	36				
743					Number of Detects	45	Number of Non-Detects	28				
744					Number of Distinct Detects	35	Number of Distinct Non-Detects	2				
745					Minimum Detect	0.005	Minimum Non-Detect	5.0000E-4				
746					Maximum Detect	2.7	Maximum Non-Detect	0.005				
747					Variance Detects	0.448	Percent Non-Detects	38.36%				
748					Mean Detects	0.402	SD Detects	0.67				
749					Median Detects	0.1	CV Detects	1.664				
750					Skewness Detects	2.181	Kurtosis Detects	3.98				
751					Mean of Logged Detects	-2.22	SD of Logged Detects	1.741				
752												
753	**Normal GOF Test on Detects Only**											
754					Shapiro Wilk Test Statistic	0.63	**Shapiro Wilk GOF Test**					
755					1% Shapiro Wilk Critical Value	0.926	Detected Data Not Normal at 1% Significance Level					
756					Lilliefors Test Statistic	0.301	**Lilliefors GOF Test**					

757	1% Lilliefors Critical Value					0.153	Detected Data Not Normal at 1% Significance Level					
758	**Detected Data Not Normal at 1% Significance Level**											
759												
760	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
761	KM Mean					0.248	KM Standard Error of Mean					0.0657
762	90KM SD					0.555	95% KM (BCA) UCL					0.369
763	95% KM (t) UCL					0.358	95% KM (Percentile Bootstrap) UCL					0.364
764	95% KM (z) UCL					0.356	95% KM Bootstrap t UCL					0.394
765	90% KM Chebyshev UCL					0.446	95% KM Chebyshev UCL					0.535
766	97.5% KM Chebyshev UCL					0.659	99% KM Chebyshev UCL					0.902
767												
768	**Gamma GOF Tests on Detected Observations Only**											
769	A-D Test Statistic					1.509	**Anderson-Darling GOF Test**					
770	5% A-D Critical Value					0.817	Detected Data Not Gamma Distributed at 5% Significance Level					
771	K-S Test Statistic					0.145	**Kolmogorov-Smirnov GOF**					
772	5% K-S Critical Value					0.14	Detected Data Not Gamma Distributed at 5% Significance Level					
773	**Detected Data Not Gamma Distributed at 5% Significance Level**											
774												
775	**Gamma Statistics on Detected Data Only**											
776	k hat (MLE)					0.487	k star (bias corrected MLE)					0.469
777	Theta hat (MLE)					0.827	Theta star (bias corrected MLE)					0.858
778	nu hat (MLE)					43.82	nu star (bias corrected)					42.23
779	Mean (detects)					0.402						
780												
781	**Gamma ROS Statistics using Imputed Non-Detects**											
782	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
783	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
784	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
785	This is especially true when the sample size is small.											
786	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
787	Minimum					0.005	Mean					0.252
788	Maximum					2.7	Median					0.02
789	SD					0.558	CV					2.214
790	k hat (MLE)					0.378	k star (bias corrected MLE)					0.372
791	Theta hat (MLE)					0.666	Theta star (bias corrected MLE)					0.678
792	nu hat (MLE)					55.2	nu star (bias corrected)					54.26
793	Adjusted Level of Significance (β)					0.0467						
794	Approximate Chi Square Value (54.26, α)					38.34	Adjusted Chi Square Value (54.26, β)					38.07
795	95% Gamma Approximate UCL					0.357	95% Gamma Adjusted UCL					0.359
796												
797	**Estimates of Gamma Parameters using KM Estimates**											
798	Mean (KM)					0.248	SD (KM)					0.555
799	Variance (KM)					0.309	SE of Mean (KM)					0.0657
800	k hat (KM)					0.2	k star (KM)					0.201
801	nu hat (KM)					29.17	nu star (KM)					29.31
802	theta hat (KM)					1.243	theta star (KM)					1.237
803	80% gamma percentile (KM)					0.328	90% gamma percentile (KM)					0.751
804	95% gamma percentile (KM)					1.278	99% gamma percentile (KM)					2.729
805												
806	**Gamma Kaplan-Meier (KM) Statistics**											
807	Approximate Chi Square Value (29.31, α)					17.95	Adjusted Chi Square Value (29.31, β)					17.77
808	95% KM Approximate Gamma UCL					0.405	95% KM Adjusted Gamma UCL					0.409
809												
810	**Lognormal GOF Test on Detected Observations Only**											

	A	B	C	D	E	F	G	H	I	J	K	L
811					Shapiro Wilk Test Statistic	0.953	**Shapiro Wilk GOF Test**					
812					10% Shapiro Wilk Critical Value	0.953	Detected Data Not Lognormal at 10% Significance Level					
813					Lilliefors Test Statistic	0.101	**Lilliefors GOF Test**					
814					10% Lilliefors Critical Value	0.12	Detected Data appear Lognormal at 10% Significance Level					
815	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
816												
817	**Lognormal ROS Statistics Using Imputed Non-Detects**											
818					Mean in Original Scale	0.249	Mean in Log Scale					-3.885
819					SD in Original Scale	0.559	SD in Log Scale					2.657
820				95% t UCL (assumes normality of ROS data)		0.358	95% Percentile Bootstrap UCL					0.36
821					95% BCA Bootstrap UCL	0.38	95% Bootstrap t UCL					0.388
822					95% H-UCL (Log ROS)	2.681						
823												
824	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
825					KM Mean (logged)	-4.284	KM Geo Mean					0.0138
826					KM SD (logged)	2.945	95% Critical H Value (KM-Log)					4.677
827					KM Standard Error of Mean (logged)	0.349	95% H-UCL (KM -Log)					5.344
828					KM SD (logged)	2.945	95% Critical H Value (KM-Log)					4.677
829					KM Standard Error of Mean (logged)	0.349						
830												
831	**DL/2 Statistics**											
832	**DL/2 Normal**						**DL/2 Log-Transformed**					
833					Mean in Original Scale	0.249	Mean in Log Scale					-3.698
834					SD in Original Scale	0.559	SD in Log Scale					2.342
835					95% t UCL (Assumes normality)	0.358	95% H-Stat UCL					1.115
836	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
837												
838	**Nonparametric Distribution Free UCL Statistics**											
839	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
840												
841	**Suggested UCL to Use**											
842					KM H-UCL	5.344						
843	**Warning: Recommended UCL exceeds the maximum observation**											
844												
845	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
846	**Please verify the data were collected from random locations.**											
847	**If the data were collected using judgmental or other non-random methods,**											
848	**then contact a statistician to correctly calculate UCLs.**											
849												
850	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
851	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
852	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
853												

Appendix C Selection of receptors of concern

Table C1 Accumulated Data, All Species and Sources

Table C2 Bird and Mammal Species Screening

Table C1 - All Species

Group	Common Name	Scientific Name		Ecologist Reports: Elgin (2025a and 2025b) PPB foreshore	Ecologist Reports: Elgin (2025a and 2025b) RAAF Lake	Databases: NatureKit No. Obs	Databases: NatureKit Dates
Aquatic Plant	Caulerpa	*Caulerpa spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Caulerpa green algae	*Caulerpaceae spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Codium green algae	*Codium spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Filamentous Red Algae	*Rhodophyta spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Red Foliose Algae	*Rhodophyta spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Sea Lettuce	*Ulva spp.*	*Yes*	Yes	No	-	-
Aquatic Plant	Seagrass	*Seagrass spp.*	*Yes*	Yes	No	-	-
Benthic Invertebrate	Beach Worms	-	*Yes*	Yes	No	-	-
Benthic Invertebrate	Common Limpet	-	*Yes*	Yes	No	-	-
Benthic Invertebrate	Pacific Oyster	-	*Yes*	Yes	No	-	-
Benthic Invertebrate	Pipi	-	*Yes*	Yes	No	-	-
Benthic Invertebrate	Shore Crab	-	*Yes*	Yes	No	-	-
Bird	Black Swan	*Cygnus atratus*	*Yes*	Yes	No	136	1977-2021
Bird	Common Starling	*Sturnus vulgaris*	*Yes*	No	No	135	1977-2021
Bird	Silver Gull	*Chroicocephalus novaehollandiae*	*Yes*	Yes	No	131	1977-2021
Bird	Australian Magpie	*Gymnorhina tibicen*	*Yes*	Yes	No	123	1977-2021
Bird	Willie Wagtail	*Rhipidura leucophrys*	*Yes*	Yes	No	120	1977-2021
Bird	Magpie-lark	*Grallina cyanoleuca*	*Yes*	No	No	116	1977-2021
Bird	Welcome Swallow	*Hirundo neoxena*	*Yes*	No	No	113	1977-2020
Bird	White-faced Heron	*Egretta novaehollandiae*	*Yes*	No	No	113	1977-2017
Bird	House Sparrow	*Passer domesticus*	*Yes*	No	No	112	1977-2021
Bird	Grey Teal	*Anas gracilis*	*Yes*	No	No	104	1977-2021
Bird	White-fronted Chat	*Epthianura albifrons*	*Yes*	No	No	103	1977-2017
Bird	New Holland Honeyeater	*Phylidonyris novaehollandiae*	*Yes*	No	No	31	1950-2021
Bird	Royal Spoonbill	*Platalea regia*	*Yes*	No	No	31	1977-2018
Bird	Striated Fieldwren	*Calamanthus fuliginosus*	*Yes*	No	No	31	1977-2021
Bird	Flame Robin	*Petroica phoenicea*	*Yes*	No	No	30	1977-2021
Bird	Galah	*Eolophus roseicapilla*	*Yes*	No	No	30	1977-2021
Bird	Dusky Moorhen	*Gallinula tenebrosa*	*Yes*	No	No	28	1977-2020
Bird	Silvereye	*Zosterops lateralis*	*Yes*	No	No	28	1977-2020
Bird	Crested Pigeon	*Ocyphaps lophotes*	*Yes*	No	No	26	2000-2020
Bird	Grey Fantail	*Rhipidura albiscapa*	*Yes*	No	No	26	1977-2020
Bird	Red-kneed Dotterel	*Erythrogonys cinctus*	*Yes*	No	No	26	1977-2005
Bird	Marsh Sandpiper, Little Greenshank	*Tringa stagnatilis*	*Yes*	No	No	26	1977-2000
Bird	Pied Oystercatcher	*Haematopus longirostris*	*Yes*	No	No	24	1977-1999
Bird	Black-faced Cuckoo-shrike	*Coracina novaehollandiae*	*Yes*	No	No	23	1977-2019
Bird	Black-tailed Native-hen	*Tribonyx ventralis*	*Yes*	No	No	23	1977-2004
Bird	Musk Duck	*Biziura lobata*	*Yes*	No	No	23	1977-2018
Bird	Double-banded Plover	*Charadrius bicinctus*	*Yes*	No	No	23	1977-2021
Bird	Horsfield's Bronze-Cuckoo	*Chrysococcyx basalis*	*Yes*	No	No	22	1977-2017
Bird	Whistling Kite	*Haliastur sphenurus*	*Yes*	No	No	22	1977-2020
Bird	Australian Spotted Crake	*Porzana fluminea*	*Yes*	No	No	16	1977-2001
Bird	Reed-Warbler	*Acrocephalus australis*	*Yes*	No	No	16	1977-2020
Bird	Banded Lapwing	*Vanellus tricolor*	*Yes*	No	No	15	1977-2006
Bird	Brown Goshawk	*Accipiter fasciatus*	*Yes*	No	No	15	1977-2008
Bird	Pink-eared Duck	*Malacorhynchus membranaceus*	*Yes*	No	No	15	1977-2001
Bird	White-necked Heron	*Ardea pacifica*	*Yes*	No	No	15	1977-2002
Bird	Little Tern	*Sternula albifrons*	*Yes*	No	No	15	1977-1981
Bird	Common Tern	*Sterna hirundo*	*Yes*	No	No	14	1977-1981
Bird	Bar-tailed Godwit	*Limosa lapponica*	*Yes*	No	No	14	1977-1997
Bird	Spotted Harrier	*Circus assimilis*	*Yes*	No	No	12	1977-2019
Bird	Red Knot, Knot	*Calidris canutus*	*Yes*	No	No	12	1950-1994
Bird	Australian Wood Duck	*Chenonetta jubata*	*Yes*	No	No	11	1977-2000
Bird	Great Crested Grebe	*Podiceps cristatus*	*Yes*	No	No	11	1977-1999

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Bird	Caspian Tern	*Hydroprogne caspia*	*Yes*	No	No	11	1977-1981
Bird	Australian Raven	*Corvus coronoides*	*Yes*	No	No	10	1977-2017
Bird	Brown Quail	*Synoicus ypsilophorus*	*Yes*	No	No	10	1977-2017
Bird	Fan-tailed Cuckoo	*Cacomantis flabelliformis*	*Yes*	No	No	10	1977-2012
Bird	Blue-winged Parrot	*Neophema chrysostoma*	*Yes*	No	No	10	1977-2000
Bird	Common Sandpiper	*Actitis hypoleucos*	*Yes*	No	No	10	1950-1981
Bird	Arctic Jaeger	*Stercorarius parasiticus*	*Yes*	No	No	9	1977-1978
Bird	Stubble Quail	*Coturnix pectoralis*	*Yes*	No	No	9	1977-1999
Bird	Sulphur-crested Cockatoo	*Cacatua galerita*	*Yes*	No	No	9	1977-1981
Bird	Black Falcon	*Falco subniger*	*Yes*	No	No	9	1977-1991
Bird	Ruddy Turnstone	*Arenaria interpres*	*Yes*	No	No	9	1977-1980
Bird	Wood Sandpiper	*Tringa glareola*	*Yes*	No	No	9	1977-1996
Bird	Australian Hobby	*Falco longipennis*	*Yes*	No	No	8	1977-2010
Bird	Tree Martin	*Petrochelidon nigricans*	*Yes*	No	No	8	1977-2012
Bird	White-winged Black Tern	*Chlidonias leucopterus*	*Yes*	No	No	8	1977-1982
Bird	Horsfield's Bushlark	*Mirafra javanica*	*Yes*	No	No	7	1977-2017
Bird	Baillon's Crake	*Porzana pusilla*	*Yes*	No	No	6	1950-1993
Bird	Brown Thornbill	*Acanthiza pusilla*	*Yes*	No	No	6	1977-2020
Bird	Buff-banded Rail	*Hypotaenidia philippensis*	*Yes*	No	No	6	1977-1981
Bird	Eastern Cattle Egret	*Bubulcus coromandus*	*Yes*	No	No	6	1977-1978
Bird	Pallid Cuckoo	*Cacomantis pallidus*	*Yes*	No	No	6	1977-2007
Bird	Red-rumped Parrot	*Psephotus haematonotus*	*Yes*	No	No	6	1977-2010
Bird	Eastern Great Egret	*Ardea alba modesta*	*Yes*	No	No	6	2017-2019
Bird	Orange-bellied Parrot	*Neophema chrysogaster*	*Yes*	No	No	6	1950-2004
Bird	Pectoral Sandpiper	*Calidris melanotos*	*Yes*	No	No	6	1977-1978
Bird	Eastern Rosella	*Platycercus eximius*	*Yes*	No	No	5	1950-2007
Bird	European Brown Hare	*Lepus europaeus*	*Yes*	No	No	5	1988-2006
Bird	Mallard	*Anas platyrhynchos*	*Yes*	No	No	5	1977-1980
Bird	Sacred Kingfisher	*Todiramphus sanctus*	*Yes*	No	No	5	1950-2000
Bird	Yellow Thornbill	*Acanthiza nana*	*Yes*	No	No	5	1950-2020
Bird	Plumed Egret	*Ardea intermedia plumifera*	*Yes*	No	No	5	1977-1978
Bird	Laughing Kookaburra	*Dacelo novaeguineae*	*Yes*	No	No	4	1950-1979
Bird	Rufous Whistler	*Pachycephala rufiventris*	*Yes*	No	No	4	1978-2008
Bird	Scarlet Robin	*Petroica boodang*	*Yes*	No	No	4	1950-2000
Bird	Wilson's Phalarope	*Steganopus tricolor*	*Yes*	No	No	4	1977-1981
Bird	Zebra Finch	*Taeniopygia guttata*	*Yes*	No	No	4	1978-2021
Bird	Lesser Sand Plover	*Charadrius mongolus*	*Yes*	No	No	4	1977-1994
Bird	Blue-billed Duck	*Oxyura australis*	*Yes*	No	No	4	1977-2001
Bird	Little Eagle	*Hieraaetus morphnoides*	*Yes*	No	No	4	1978-2000
Bird	Black-tailed Godwit	*Limosa limosa*	*Yes*	No	No	4	1978-1981
Bird	Great Knot	*Calidris tenuirostris*	*Yes*	No	No	4	1950-1978
Bird	Golden Whistler	*Pachycephala pectoralis*	*Yes*	No	No	3	1950-1999
Bird	Grey Shrike-thrush	*Colluricincla harmonica*	*Yes*	No	No	3	1978-2000
Bird	Little Penguin	*Eudyptula minor*	*Yes*	No	No	3	1977-1979
Bird	Little Wattlebird	*Anthochaera chrysoptera*	*Yes*	No	No	3	1998-2019
Bird	Nankeen Night-Heron	*Nycticorax caledonicus*	*Yes*	No	No	3	1977-2012
Bird	Pink Robin	*Petroica rodinogaster*	*Yes*	No	No	3	1950-1999
Bird	Red-browed Finch	*Neochmia temporalis*	*Yes*	No	No	3	1978-2012
Bird	Rufous Songlark	*Cincloramphus mathewsi*	*Yes*	No	No	3	1950-1979
Bird	Short-tailed Shearwater	*Ardenna tenuirostris*	*Yes*	No	No	3	1977-1978
Bird	Sooty Oystercatcher	*Haematopus fuliginosus*	*Yes*	No	No	3	1950-2017
Bird	Spotted Pardalote	*Pardalotus punctatus*	*Yes*	No	No	3	1950-1981
Bird	Striated Pardalote	*Pardalotus striatus*	*Yes*	No	No	3	1978-2010
Bird	Striated Thornbill	*Acanthiza lineata*	*Yes*	No	No	3	1999-2008

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Bird	White-bellied Sea-Eagle	*Haliaeetus leucogaster*	*Yes*	No	No	3	2008-2019
Bird	Long-toed Stint	*Calidris subminuta*	*Yes*	No	No	3	1978
Bird	Barn Owl	*Tyto alba*	*Yes*	No	No	2	1978-1979
Bird	Black-faced Cormorant	*Phalacrocorax fuscescens*	*Yes*	No	No	2	1950-2018
Bird	Collared Sparrowhawk	*Accipiter cirrocephalus*	*Yes*	No	No	2	1977
Bird	Common Bronzewing	*Phaps chalcoptera*	*Yes*	No	No	2	1950-1978
Bird	Crimson Rosella	*Platycercus elegans*	*Yes*	No	No	2	1950-1977
Bird	Dusky Woodswallow	*Artamus cyanopterus*	*Yes*	No	No	2	1977-1978
Bird	Eastern Spinebill	*Acanthorhynchus tenuirostris*	*Yes*	No	No	2	1950-1978
Bird	Fluttering Shearwater	*Puffinus gavia*	*Yes*	No	No	2	1977-1978
Bird	Glossy Ibis	*Plegadis falcinellus*	*Yes*	No	No	2	1991-2000
Bird	Grey Butcherbird	*Cracticus torquatus*	*Yes*	No	No	2	1977
Bird	Kelp Gull	*Larus dominicanus*	*Yes*	No	No	2	1950-1977
Bird	Little Lorikeet	*Parvipsitta pusilla*	*Yes*	No	No	2	1977-1978
Bird	Mistletoebird	*Dicaeum hirundinaceum*	*Yes*	No	No	2	1950-1977
Bird	Noisy Miner	*Manorina melanocephala*	*Yes*	No	No	2	1977
Bird	Olive-backed Oriole	*Oriolus sagittatus*	*Yes*	No	No	2	1950-2007
Bird	Peregrine Falcon	*Falco peregrinus*	*Yes*	No	No	2	1977-1978
Bird	Plovers, Dotterels and Lapwings	*Charadriidae spp.*	*Yes*	No	No	2	2002-2003
Bird	Pomarine Jaeger	*Stercorarius pomarinus*	*Yes*	No	No	2	1950-1980
Bird	Purple-crowned Lorikeet	*Parvipsitta porphyrocephala*	*Yes*	No	No	2	1980-2001
Bird	Ravens and Crows	*Corvus spp.*	*Yes*	No	No	2	2000-2019
Bird	Shining Bronze-Cuckoo	*Chrysococcyx lucidus*	*Yes*	No	No	2	1978-2021
Bird	Southern Boobook	*Ninox boobook*	*Yes*	No	No	2	1950-1978
Bird	Spiny-cheeked Honeyeater	*Acanthagenys rufogularis*	*Yes*	No	No	2	1978-2009
Bird	Spotless Crake	*Porzana tabuensis*	*Yes*	No	No	2	1977
Bird	White-winged Triller	*Lalage tricolor*	*Yes*	No	No	2	1978-2009
Bird	Lewin's Rail	*Lewinia pectoralis*	*Yes*	No	No	2	1950-1977
Bird	Australasian Bittern	*Botaurus poiciloptilus*	*Yes*	No	No	2	1978-1997
Bird	Australian Painted Snipe	*Rostratula australis*	*Yes*	No	No	2	1977
Bird	White-throated Needletail	*Hirundapus caudacutus*	*Yes*	No	No	2	1977-1978
Bird	Australasian Darter	*Anhinga novaehollandiae*	*Yes*	No	No	1	2001
Bird	Australian Pratincole	*Stiltia isabella*	*Yes*	No	No	1	1950
Bird	Bassian Thrush	*Zoothera lunulata*	*Yes*	No	No	1	1950
Bird	Black Kite	*Milvus migrans*	*Yes*	No	No	1	1987
Bird	Buff-breasted Sandpiper	*Tryngites subruficollis*	*Yes*	No	No	1	1978
Bird	Cape Barren Goose	*Cereopsis novaehollandiae*	*Yes*	No	No	1	2005
Bird	Cockatiel	*Nymphicus hollandicus*	*Yes*	No	No	1	1977
Bird	Cocomorants	*Phalacrocoracidae spp.*	*Yes*	No	No	1	2017
Bird	Eastern Shrike-tit	*Falcunculus frontatus*	*Yes*	No	No	1	1950
Bird	Eastern Yellow Robin	*Eopsaltria australis*	*Yes*	No	No	1	1950
Bird	Great Skua	*Stercorarius antarcticus*	*Yes*	No	No	1	1950
Bird	Grebes	*Podicipedidae spp.*	*Yes*	No	No	1	2001
Bird	Hutton's Shearwater	*Puffinus huttoni*	*Yes*	No	No	1	1950
Bird	Jacky Winter	*Microeca fascinans*	*Yes*	No	No	1	1950
Bird	Leaden Flycatcher	*Myiagra rubecula*	*Yes*	No	No	1	1950
Bird	Letter-winged Kite	*Elanus scriptus*	*Yes*	No	No	1	1978
Bird	Little Button-quail	*Turnix velox*	*Yes*	No	No	1	1950
Bird	Long-billed Corella	*Cacatua tenuirostris*	*Yes*	No	No	1	2000
Bird	Olive Whistler	*Pachycephala olivacea*	*Yes*	No	No	1	1950
Bird	Oriental Pratincole	*Glareola maldivarum*	*Yes*	No	No	1	1950
Bird	Rainbow Lorikeet	*Trichoglossus moluccanus*	*Yes*	No	No	1	2021
Mammal	Dusky Dolphin	*Lagenorhynchus obscurus*	*No*	No	No	-	-
Bird	Red-capped Robin	*Petroica goodenovii*	*Yes*	No	No	1	1950

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Bird	Restless Flycatcher	*Myiagra inquieta*	*Yes*	No	No	1	1950
Bird	Rose Robin	*Petroica rosea*	*Yes*	No	No	1	1950
Bird	Rufous Fantail	*Rhipidura rufifrons*	*Yes*	No	No	1	1950
Bird	Sanderling	*Calidris alba*	*Yes*	No	No	1	1978
Bird	Satin Flycatcher	*Myiagra cyanoleuca*	*Yes*	No	No	1	1950
Bird	Song Thrush	*Turdus philomelos*	*Yes*	No	No	1	1950
Bird	Wedge-tailed Eagle	*Aquila audax*	*Yes*	No	No	1	1977
Bird	White-breasted Woodswallow	*Artamus leucorynchus*	*Yes*	No	No	1	1991
Bird	White-browed Woodswallow	*Artamus superciliosus*	*Yes*	No	No	1	1950
Bird	White-eared Honeyeater	*Nesoptilotis leucotis*	*Yes*	No	No	1	2020
Bird	White-naped Honeyeater	*Melithreptus lunatus*	*Yes*	No	No	1	1978
Bird	Yellow-faced Honeyeater	*Caligavis chrysops*	*Yes*	No	No	1	1950
Bird	Yellow-tailed Black-Cockatoo	*Calyptorhynchus funereus*	*Yes*	No	No	1	2010
Bird	Grey Goshawk	*Accipiter novaehollandiae*	*Yes*	No	No	1	1999
Bird	Terek Sandpiper	*Xenus cinereus*	*Yes*	No	No	1	1950
Bird	Chestnut-rumped Heathwren	*Calamanthus pyrrhopygius*	*Yes*	No	No	1	1978
Bird	Elegant Parrot	*Neophema elegans*	*Yes*	No	No	1	1950
Bird	Grey Plover	*Pluvialis squatarola*	*Yes*	No	No	1	1978
Bird	Swift Parrot	*Lathamus discolor*	*Yes*	No	No	1	1978
Bird	Greater Sand Plover, Large Sand Plover	*Charadrius leschenaultii*	*Yes*	No	No	1	1978
Bird	Fork-tailed Swift	*Apus pacificus*	*Yes*	No	No	1	1978
Bird	Southern Whiteface	*Aphelocephala leucopsis*	*Yes*	No	No	1	1950
Bird	Broad-billed Sandpiper	*Limicola falcinellus*	*Yes*	No	No	1	1977
Bird	Little Curlew, Little Whimbrel	*Numenius minutus*	*Yes*	No	No	1	1950
Bird	Ruff	*Calidris pugnax*	*Yes*	No	No	1	1981
Bird	Grey-tailed Tattler	*Tringa brevipes*	*Yes*	No	No	1	1977
Bird	Diamond Firetail	*Stagonopleura guttata*	*Yes*	No	No	1	1950
Ecological Community	Grassy Eucalypt Woodland of the Victorian Volcanic Plain	NA	No	No	No	-	-
Ecological Community	Natural Damp Grassland of the Victorian Coastal Plains	NA	No	No	No	-	-
Ecological Community	Natural Temperate Grassland of the Victorian Volcanic Plain	NA	No	No	No	-	-
Ecological Community	Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	NA	No	No	No	-	-
Invertebrate	Common Brown Butterfly	*Heteronympha merope*	*Yes*	No	No	2	2019
Invertebrate	Desmazeria	*Tribolium acutiflorum s.l.*	*Yes*	No	No	1	1984
Invertebrate	Golden Sun Moth	*Synemon plana*	*No*	No	No	-	-
Invertebrate	Italian snail	*Theba pisana**	*Yes*	No	Yes	-	-
Mammal	Australian Fur-seal, Australo-African Fur-seal	*Arctocephalus pusillus*	*No*	No	No	-	-
Mammal	Black Rat	*Rattus rattus*	*Yes*	No	No	2	1988-1992
Mammal	Bottlenose Dolphin	*Tursiops truncatus s. str.*	*No*	No	No	-	-
Mammal	Brown Rat	*Rattus norvegicus*	*Yes*	No	No	1	1992
Mammal	Common Dolphin, Short-beaked Common Dolphin	*Delphinus delphis*	*No*	No	No	-	-
Mammal	European Rabbit	*Oryctolagus cuniculus*	*Yes*	No	No	9	1988-2012
Mammal	Grey-headed Flying-fox	*Pteropus poliocephalus*	*No*	No	No	-	-
Mammal	House Mouse	*Mus musculus*	*Yes*	No	No	4	1988-2005
Mammal	Humpback Whale	*Megaptera novaeangliae*	*No*	No	No	-	-
Mammal	Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin	Tursiops aduncus	No	No	No	-	-
Mammal	Long-nosed Fur-seal, New Zealand Fur-seal	*Arctocephalus forsteri*	*No*	No	No	-	-
Mammal	Pygmy Right Whale	*Caperea marginata*	*No*	No	No	-	-
Mammal	Red Fox	*Vulpes vulpes*	*Yes*	No	No	5	1988-2012
Mammal	Southern Right Whale	*Eubalaena australis*	*No*	No	No	-	-
Mammal	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	*Dasyurus maculatus maculatus (SE mainland population)*	*No*	No	No	-	-
Mammal	Undetermined, Dingo or Dog	*Canis spp.*	*Yes*	No	No	1	1992
Pelagic Invertebrate	Jellyfish	-	*Yes*	Yes	No	-	-
Pelagic Invertebrate	Southern Calamari	-	*Yes*	Yes	No	-	-
Plant	Black-anther Flax-lily	*Dianella revoluta s.l.*	*Yes*	No	No	1	1984

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Plant	Blackseed Glasswort	*Tecticornia pergranulata subsp. pergranulata*	*Yes*	No	No	3	1984-2010
Plant	Blue Devil	*Eryngium ovinum*	*Yes*	No	No	2	1984
Plant	Bower Spinach	*Tetragonia implexicoma*	*Yes*	No	No	5	1984-2020
Plant	Bristly Wallaby-grass	*Rytidosperma setaceum*	*Yes*	No	No	11	1984-2005
Plant	Brown-back Wallaby-grass	*Rytidosperma duttonianum*	*Yes*	No	No	12	1984-2012
Plant	Brown-top Bent	*Agrostis capillaris*	*Yes*	No	No	2	2011-2015
Plant	Buck's-horn Plantain	*Plantago coronopus*	*Yes*	No	No	13	1984-2015
Plant	Buffalo Grass	*Stenotaphrum secundatum*	*Yes*	No	No	1	1984
Plant	Bulrush	*Typha spp.*	*Yes*	No	No	3	1992-2015
Plant	Burr Medic	*Medicago polymorpha*	*Yes*	No	No	4	1984-2012
Plant	Buttercup	*Ranunculus spp.*	*Yes*	No	No	1	2004
Plant	Button Wrinklewort	*Rutidosis leptorhynchoides*	*No*	No	No	-	-
Plant	Canary Grass	*Phalaris spp.*	*Yes*	No	No	2	2011-2015
Plant	Cane Needle-grass	*Nassella hyalina*	*Yes*	No	No	3	2004-2012
Plant	Cape Weed	*Arctotheca calendula*	*Yes*	No	No	6	1984-2015
Plant	century plant	*Agave sp.*	*Yes*	No	Yes	-	-
Plant	Chaffy Saw-sedge	*Gahnia filum*	*Yes*	No	No	4	1984-2012
Plant	Chickweed	*Stellaria media*	*Yes*	No	No	1	2012
Plant	Chilean Needle-grass	*Nassella neesiana*	*Yes*	No	No	6	2000-2015
Plant	Clover	*Trifolium spp.*	*Yes*	No	No	2	2005-2012
Plant	Clover Glycine, Purple Clover	*Glycine latrobeana*	*No*	No	No	-	-
Plant	Clustered Dock	*Rumex conglomeratus*	*Yes*	No	No	6	1996-2012
Plant	Coast Barb-grass	*Parapholis incurva*	*Yes*	No	No	1	1984
Plant	Coast Beard-grass	*Polypogon maritimus var. subspathaceus*	*Yes*	No	No	1	2004
Plant	Coast Saltbush	*Atriplex cinerea*	*Yes*	No	No	1	1987
Plant	Coast Saltwort	*Salsola tragus subsp. pontica*	*Yes*	No	No	1	1984
Plant	Coast Sand-spurrey	*Spergularia media s.l.*	*Yes*	No	No	1	1984
Plant	Coast Tussock-grass	*Poa poiformis*	*Yes*	No	No	3	1984-2002
Plant	Coast Wattle	*Acacia longifolia subsp. sophorae*	*Yes*	No	No	1	2002
Plant	Coast Wirilda	*Acacia uncifolia*	*Yes*	No	No	1	1990
Plant	coastal rosemary	*Westringia fructicosa*	*Yes*	No	Yes	-	-
Plant	coastal wattle	*Acacia longifolia sophorae*	*Yes*	No	Yes	-	-
Plant	Cocksfoot	*Dactylis glomerata*	*Yes*	No	No	5	1984-2015
Plant	Common Barb-grass	*Hainardia cylindrica*	*Yes*	No	No	1	2000
Plant	Common Blown-grass	*Lachnagrostis filiformis s.l.*	*Yes*	No	No	10	1984-2005
Plant	Common Bog-sedge	*Schoenus apogon*	*Yes*	No	No	2	2002-2012
Plant	Common Dodder	*Cuscuta epithymum*	*Yes*	No	No	2	1984-2004
Plant	Common Duckweed	*Lemna disperma*	*Yes*	No	No	4	1984-2015
Plant	Common Eutaxia	*Eutaxia microphylla*	*Yes*	No	No	1	1984
Plant	Common Everlasting	*Chrysocephalum apiculatum s.l.*	*Yes*	No	No	1	1984
Plant	Common Fiddle-neck	*Amsinckia intermedia*	*Yes*	No	No	1	2005
Plant	Common Grass-sedge	*Carex breviculmis*	*Yes*	No	No	2	2004
Plant	Common Heron's-bill	*Erodium cicutarium*	*Yes*	No	No	2	1984-2005
Plant	Common Mouse-ear Chickweed	*Cerastium glomeratum s.l.*	*Yes*	No	No	1	1984
Plant	Common Nardoo	*Marsilea drummondii*	*Yes*	No	No	7	1984-2015
Plant	Common Peppercress	*Lepidium africanum*	*Yes*	No	No	2	2005-2012
Plant	Common Plait-moss	*Hypnum cupressiforme*	*Yes*	No	No	1	2004
Plant	Common Sneezeweed	*Centipeda cunninghamii*	*Yes*	No	No	1	1984
Plant	Common Sow-thistle	*Sonchus oleraceus*	*Yes*	No	No	7	1984-2012
Plant	Common Spike-sedge	*Eleocharis acuta*	*Yes*	No	No	12	1984-2015
Plant	Common Thorn-apple	*Datura stramonium*	*Yes*	No	No	1	1984
Plant	Common Tussock-grass	*Poa labillardierei var. labillardierei*	*Yes*	No	No	1	2002
Plant	Common Tussock-grass	*Poa labillardierei*	*Yes*	No	No	2	1984
Plant	Common Vetch	*Vicia sativa*	*Yes*	No	No	1	2005

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Plant	Common Wallaby-grass	*Rytidosperma caespitosum*	*Yes*	No	No	3	1984-2012
Plant	Common Wheat-grass	*Anthosachne scabra s.l.*	*Yes*	No	No	2	1984-2004
Plant	Common Woodruff	*Asperula conferta*	*Yes*	No	No	5	2002-2015
Plant	Cotton Fireweed	*Senecio quadridentatus*	*Yes*	No	No	1	2012
Plant	Couch	*Cynodon dactylon var. dactylon*	*Yes*	No	No	1	2012
Plant	Couch	*Cynodon dactylon*	*Yes*	No	No	3	1984-2015
Plant	Creamy Stackhousia	*Stackhousia monogyna s.l.*	*Yes*	No	No	1	1984
Plant	Creeping Brookweed	*Samolus repens*	*Yes*	No	No	2	1984-1996
Plant	Crow Garlic	*Allium vineale*	*Yes*	No	No	1	2004
Plant	Curled Dock	*Rumex crispus*	*Yes*	No	No	4	1984-2012
Plant	Cypress sp.	*Cypress sp.*	*Yes*	Yes	Yes	-	-
Plant	Drain Flat-sedge	*Cyperus eragrostis*	*Yes*	No	No	4	1984-2015
Plant	Drooping Sheoak	*Allocasuarina verticillata*	*Yes*	No	No	1	2012
Plant	Dyer's Thistl	*Reseda luteola*	*Yes*	No	Yes	-	-
Plant	Erect Chickweed	*Moenchia erecta*	*Yes*	No	Yes	1	1984
Plant	erect prickly pear	*Opuntia stricta **	*Yes*	No	Yes	-	-
Plant	Fat Hen	*Chenopodium album*	*Yes*	No	No	1	1984
Plant	Feathertop	*Cenchrus longisetus*	*Yes*	No	No	1	1984
Plant	Fennel Pondweed	*Stuckenia pectinata*	*Yes*	No	No	1	1992
Plant	Ferny Cotula	*Cotula bipinnata*	*Yes*	No	No	1	2005
Plant	Ferny Small-flower Buttercup	*Ranunculus pumilio*	*Yes*	No	No	1	1984
Plant	Fescue	*Vulpia spp.*	*Yes*	No	No	1	2012
Plant	Fiddle Dock	*Rumex pulcher subsp. pulcher*	*Yes*	No	No	1	2004
Plant	Finger Rush	*Juncus subsecundus*	*Yes*	No	No	3	1984-2012
Plant	Five-awned Spear-grass	*Pentapogon quadrifidus var. quadrifidus*	*Yes*	No	No	1	1984
Plant	Flatweed	*Hypochaeris radicata*	*Yes*	No	No	9	1984-2015
Plant	Flaxleaf Fleabane	*Erigeron bonariensis*	*Yes*	No	No	3	1984-2004
Plant	Floating Pondweed	*Potamogeton tricarinatus s.l.*	*Yes*	No	No	1	1984
Plant	Fox-tail Fescue	*Vulpia myuros f. megalura*	*Yes*	No	No	1	1984
Plant	Fragrant Leek-orchid	*Prasophyllum suaveolens*	*No*	No	No	-	-
Plant	Galenia	*Aizoon pubescens*	*Yes*	No	No	6	1987-2015
Plant	Giant Honey-myrtle	*Melaleuca armillaris subsp. armillaris*	*Yes*	No	No	2	2011-2015
Plant	Glasswort	*Tecticornia spp.*	*Yes*	Yes	No	4	2010
Plant	Glaucous Goosefoot	*Chenopodium glaucum*	*Yes*	No	No	2	1984-2014
Plant	Gold Rush	*Juncus flavidus*	*Yes*	No	No	10	1984-2005
Plant	Grassland Crane's-bill	*Geranium retrorsum s.l.*	*Yes*	No	No	1	1984
Plant	Grassland Daisy	*Brachyscome angustifolia s.l.*	*Yes*	No	No	1	1984
Plant	Grassland Wood-sorrel	*Oxalis perennans*	*Yes*	No	No	3	2004-2005
Plant	Green-striped Greenhood	*Pterostylis chlorogramma*	*No*	No	No	-	-
Plant	Grey Glasswort	*Tecticornia halocnemoides subsp. halocnemoides*	*Yes*	No	No	1	2010
Plant	Grey Roly-poly	*Sclerolaena muricata var. villosa*	*Yes*	No	No	1	2012
Plant	Grey Willow-herb	*Epilobium billardiereanum subsp. cinereum*	*Yes*	No	No	6	2004
Plant	Hairy Hawkbit	*Leontodon saxatilis subsp. saxatilis*	*Yes*	No	No	8	1984-2005
Plant	Hairy Toadflax	*Kickxia elatine*	*Yes*	No	No	1	1984
Plant	Hairy Willow-herb	*Epilobium hirtigerum*	*Yes*	No	No	1	1984
Plant	Hare's-foot Clover	*Trifolium arvense var. arvense*	*Yes*	No	No	1	1984
Plant	Hare's-tail Grass	*Lagurus ovatus*	*Yes*	Yes	Yes	4	1983-2002
Plant	Hastate Orache	*Atriplex prostrata*	*Yes*	No	No	2	2004
Plant	Hedge Wattle	*Acacia paradoxa*	*Yes*	No	No	1	2012
Plant	Hill Wallaby-grass	*Rytidosperma erianthum*	*Yes*	No	No	1	2002
Plant	Hoary Cress	*Lepidium draba*	*Yes*	No	No	2	1984-2005
Plant	Hoary Rush	*Juncus radula*	*Yes*	No	No	1	1984
Plant	Hoary Sun-orchid	*Thelymitra orientalis*	*No*	No	No	-	-
Plant	Hoary Sunray, Grassland Paper-daisy	*Leucochrysum albicans subsp. tricolor*	*No*	No	No	-	-

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Plant	Hogweed	*Polygonum aviculare s.s.*	*Yes*	No	No	1	2005
Plant	Honey-myrtle	*Melaleuca spp.*	*Yes*	No	No	1	2012
Plant	Hooded Water-milfoil	*Myriophyllum muelleri*	*Yes*	No	No	1	1967
Plant	Hop Clover	*Trifolium campestre var. campestre*	*Yes*	No	No	3	1984-2012
Plant	Horehound	*Marrubium vulgare*	*Yes*	No	No	2	1983-1984
Plant	Indian Hedge-mustard	*Sisymbrium orientale*	*Yes*	No	No	1	2005
Plant	Inland Pigface	*Carpobrotus modestus*	*Yes*	No	No	1	2012
Plant	Jersey Cudweed	*Laphangium luteoalbum*	*Yes*	No	No	1	2004
Plant	Joint-leaf Rush	*Juncus holoschoenus*	*Yes*	No	No	1	1984
Plant	Kangaroo Grass	*Themeda triandra*	*Yes*	No	No	1	1984
Plant	Karkalla	*Carpobrotus rossii*	*Yes*	No	No	2	1987-2002
Plant	Kidney-weed	*Dichondra repens*	*Yes*	No	No	2	1984-2004
Plant	Kikuyu	*Cenchrus clandestinus*	*Yes*	Yes	Yes	8	2002-2015
Plant	Kneed Wallaby-grass	*Rytidosperma geniculatum*	*Yes*	No	No	2	1984-2002
Plant	Knob Sedge	*Carex inversa*	*Yes*	No	No	1	1984
Plant	Knobby Club-sedge	*Ficinia nodosa*	*Yes*	No	No	2	1987-2002
Plant	Large Quaking-grass	*Briza maxima*	*Yes*	No	No	2	1984-2004
Plant	Large-fruit Fireweed, Large-fruit Groundsel	*Senecio macrocarpus*	*No*	No	No	-	-
Plant	Leafy Greenhood	*Pterostylis cucullata*	*No*	No	No	-	-
Plant	Lemon Beauty-heads	*Calocephalus citreus*	*Yes*	No	No	1	1984
Plant	Lesser Canary-grass	*Phalaris minor*	*Yes*	No	No	1	1984
Plant	Lesser Quaking-grass	*Briza minor*	*Yes*	No	No	1	1984
Plant	Lightwood	*Acacia implexa*	*Yes*	No	No	1	2012
Plant	Lilaea	*Triglochin scilloides*	*Yes*	No	No	1	1992
Plant	Long-fruit Water-mat	*Althenia cylindrocarpa*	*Yes*	No	No	9	1962
Plant	Madrid Brome	*Bromus madritensis*	*Yes*	Yes	No	2	1984
Plant	Mallow	*Malva spp.*	*Yes*	No	No	2	2011-2015
Plant	Mallow of Nice	*Malva nicaeensis*	*Yes*	No	No	2	2005-2012
Plant	Marsh Club-sedge	*Bolboschoenus medianus*	*Yes*	No	No	1	1992
Plant	Matted Flax-lily	*Dianella amoena*	*No*	No	No	-	-
Plant	Medic	*Medicago spp.*	*Yes*	No	No	2	1984-2012
Plant	Mediterranean Brome	*Bromus alopecuros*	*Yes*	No	No	1	1984
Plant	Milky Beauty-heads	*Calocephalus lacteus*	*Yes*	No	No	6	1984-2004
Plant	Nardoo	*Marsilea spp.*	*Yes*	No	No	2	2011-2015
Plant	Narrow-leaf Clover	*Trifolium angustifolium var. angustifolium*	*Yes*	No	No	4	1984-2012
Plant	Narrow-leaf Cumbungi	*Typha domingensis*	*Yes*	No	No	1	2005
Plant	Native Peppercress	*Lepidium pseudohyssopifolium*	*Yes*	No	No	1	1984
Plant	New Zealand Spinach	*Tetragonia tetragonioides*	*Yes*	No	Yes	-	-
Plant	Nodding Club-sedge	*Isolepis cernua s.s.*	*Yes*	No	No	1	1984
Plant	Nodding Saltbush	*Einadia nutans*	*Yes*	No	No	5	2002-2012
Plant	Oat	*Avena spp.*	*Yes*	No	No	2	2011-2015
Plant	Onion Grass	*Romulea rosea*	*Yes*	No	No	5	1984-2012
Plant	Oval Purse	*Hornungia procumbens*	*Yes*	No	No	1	2017
Plant	Ox-tongue	*Helminthotheca echioides*	*Yes*	No	No	15	1984-2012
Plant	Pacific Azolla	*Azolla rubra*	*Yes*	No	No	1	1984
Plant	Paddy Melon	*Cucumis myriocarpus subsp. myriocarpus*	*Yes*	No	No	1	1984
Plant	Pale Pigeon-grass	*Setaria pumila*	*Yes*	No	No	1	1984
Plant	Pale Rush	*Juncus pallidus*	*Yes*	No	No	3	2004-2005
Plant	Panic Veldt-grass	*Ehrharta erecta*	*Yes*	No	No	2	2005-2012
Plant	Paradoxical Canary-grass	*Phalaris paradoxa*	*Yes*	No	No	1	1984
Plant	Paspalum	*Paspalum dilatatum*	*Yes*	No	No	4	1984-2015
Plant	Paterson's Curse	*Echium plantagineum*	*Yes*	No	No	4	1984-2012
Plant	Perennial Rye-grass	*Lolium perenne*	*Yes*	No	No	7	1984-2004
Plant	Pimpernel	*Lysimachia arvensis*	*Yes*	No	No	3	1984-2004

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Plant	Pink Bindweed	*Convolvulus erubescens s.l.*	*Yes*	No	No	1	1984
Plant	Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea	*Pimelea spinescens subsp. spinescens*	*No*	No	No	-	-
Plant	Plains Saltmarsh-grass	*Puccinellia perlaxa*	*Yes*	No	No	2	1980-1996
Plant	Poison Lobelia	*Lobelia pratioides*	*Yes*	No	No	6	1984-2004
Plant	Pondweed	*Potamogeton spp.*	*Yes*	No	No	1	2005
Plant	Poong'ort	*Carex tereticaulis*	*Yes*	No	No	2	1984-2012
Plant	Prairie Grass	*Bromus catharticus*	*Yes*	No	No	3	2005-2015
Plant	Prickfoot	*Eryngium vesiculosum*	*Yes*	No	No	5	2004
Plant	Prickly Lettuce	*Lactuca serriola*	*Yes*	No	No	1	1984
Plant	Prickly Woodruff	*Asperula scoparia subsp. scoparia*	*Yes*	No	No	1	1984
Plant	Prostrate Knotweed	*Polygonum aviculare s.l.*	*Yes*	No	No	8	1984-2015
Plant	Raspwort	*Haloragis spp.*	*Yes*	No	No	2	2011-2015
Plant	Rat's-tail Fescue	*Vulpia myuros*	*Yes*	No	No	3	1984
Plant	Rat-tail Grass	*Sporobolus africanus*	*Yes*	No	No	2	1984-2002
Plant	Red Sand-spurrey	*Spergularia rubra s.l.*	*Yes*	No	No	2	1984
Plant	Red Water-milfoil	*Myriophyllum verrucosum*	*Yes*	No	No	2	2014
Plant	Red-flower Mallow	*Modiola caroliniana*	*Yes*	No	No	2	1984
Plant	Red-stem Goosefoot	*Chenopodium macrospermum*	*Yes*	No	No	4	1987-2014
Plant	Reed Bent-grass	*Deyeuxia quadriseta*	*Yes*	No	No	1	1984
Plant	Ribwort	*Plantago lanceolata*	*Yes*	No	No	12	1984-2015
Plant	Rigid Panic	*Walwhalleya proluta*	*Yes*	No	No	1	2012
Plant	River Club-sedge	*Schoenoplectus tabernaemontani*	*Yes*	No	No	1	2005
Plant	River Red-gum	*Eucalyptus camaldulensis*	*Yes*	No	No	9	1984-2015
Plant	River Swamp Wallaby-grass, Floating Swamp Wallaby-grass	*Amphibromus fluitans*	*Yes*	No	No	3	1984-2005
Plant	Rough Clover	*Trifolium scabrum*	*Yes*	No	No	1	1984
Plant	Rough Raspwort	*Haloragis aspera*	*Yes*	No	No	3	1984-2004
Plant	Rough Sow-thistle	*Sonchus asper s.l.*	*Yes*	No	No	4	1984-2005
Plant	Rounded Noon-flower	*Disphyma crassifolium subsp. clavellatum*	*Yes*	Yes	Yes	4	1984-1996
Plant	Round-leaf Wilsonia	*Wilsonia rotundifolia*	*Yes*	No	No	5	1984-2005
Plant	Ruby Saltbush	*Enchylaena tomentosa var. tomentosa*	*Yes*	No	No	3	2005-2015
Plant	Running Marsh-flower	*Ornduffia reniformis*	*Yes*	No	No	1	2005
Plant	Rush	*Juncus spp.*	*Yes*	No	No	6	2004-2015
Plant	Rye Grass	*Lolium spp.*	*Yes*	No	No	1	2012
Plant	Salsify	*Tragopogon porrifolius subsp. porrifolius*	*Yes*	No	No	1	2012
Plant	Salt Club-sedge	*Bolboschoenus caldwellii*	*Yes*	No	No	3	2004-2012
Plant	Salt Couch	*Sporobolus virginicus*	*Yes*	No	No	1	1984
Plant	Salt Groundsel	*Senecio halophilus*	*Yes*	No	No	1	2010
Plant	Salt Lawrencia	*Lawrencia spicata*	*Yes*	No	No	2	1902-2002
Plant	Sand Rocket	*Diplotaxis tenuifolia*	*Yes*	No	No	1	1984
Plant	Scaly Buttons	*Leptorhynchos squamatus*	*Yes*	No	No	1	1984
Plant	Scorzonera	*Scorzonera laciniata*	*Yes*	No	No	1	2005
Plant	Scotch Thistle	*Onopordum acanthium**	*Yes*	Yes	Yes	-	-
Plant	Sea Barley-grass	*Hordeum marinum*	*Yes*	No	No	4	1984-2004
Plant	Sea Celery	*Apium prostratum subsp. prostratum*	*Yes*	No	No	1	1984
Plant	Sea Rocket	*Cakile maritima subsp. maritima*	*Yes*	No	Yes	1	1987
Plant	Sea Rush	*Juncus kraussii subsp. australiensis*	*Yes*	No	No	5	1984-2002
Plant	Sea Wheat-grass	*Thinopyrum junceiforme*	*Yes*	No	No	1	1987
Plant	Seaberry Saltbush	*Rhagodia candolleana subsp.*	*Yes*	Yes	Yes	5	1987-2015
Plant	seashore dropseed	*Sporobulus virginicus*	*Yes*	No	Yes	-	-
Plant	Serrated Tussock	*Nassella trichotoma*	*Yes*	No	No	12	1998-2012
Plant	Sheep Sorrel	*Acetosella vulgaris*	*Yes*	No	No	3	1984
Plant	Sheep's Burr	*Acaena echinata*	*Yes*	No	No	3	1984-2004
Plant	Shepherd's Purse	*Capsella bursa-pastoris*	*Yes*	No	No	1	2005
Plant	Shiny Bog-sedge	*Schoenus nitens*	*Yes*	No	No	2	1984

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Plant	Shiny Swamp-mat	*Goodenia radicans*	*Yes*	No	No	5	1984-2004
Plant	Shiny Wallaby-grass	*Rytidosperma indutum*	*Yes*	No	No	1	2012
Plant	Silver Wattle	*Acacia dealbata*	*Yes*	No	No	1	2012
Plant	Silvery Hair-grass	*Aira caryophyllea subsp. caryophyllea*	*Yes*	No	No	1	1984
Plant	Slender Barb-grass	*Parapholis strigosa*	*Yes*	No	No	1	1984
Plant	Slender Bedstraw	*Galium divaricatum*	*Yes*	No	No	1	1984
Plant	Slender Bindweed	*Convolvulus angustissimus subsp. omnigracilis*	*Yes*	Yes	No	1	2004
Plant	Slender Centaury	*Centaurium tenuiflorum*	*Yes*	No	No	1	1984
Plant	Slender Dock	*Rumex brownii*	*Yes*	No	No	1	1984
Plant	Slender Pigeon-grass	*Setaria parviflora*	*Yes*	No	No	1	2012
Plant	Slender Speedwell	*Veronica gracilis*	*Yes*	No	No	1	1984
Plant	Slender Wallaby-grass	*Rytidosperma racemosum var. racemosum*	*Yes*	No	No	2	1984-2002
Plant	Slender Water-mat	*Althenia preissii*	*Yes*	No	No	2	1962
Plant	Small Golden Moths Orchid, Early Golden Moths	*Diuris basaltica*	*No*	No	No	-	-
Plant	Small Loosestrife	*Lythrum hyssopifolia*	*Yes*	No	No	4	1984-2005
Plant	Small Milkwort	*Comesperma polygaloides*	*Yes*	No	No	1	1984
Plant	Small Nettle	*Urtica urens*	*Yes*	No	No	1	2005
Plant	Small River Buttercup	*Ranunculus amphitrichus*	*Yes*	No	No	1	1985
Plant	Small Spike-sedge	*Eleocharis pusilla*	*Yes*	No	No	2	2004
Plant	Small St John's Wort	*Hypericum gramineum*	*Yes*	No	No	1	1984
Plant	Small-flower Flax-lily	*Dianella brevicaulis*	*Yes*	No	No	1	2004
Plant	Small-flower Onion-grass	*Romulea minutiflora*	*Yes*	No	No	1	2005
Plant	Small-fruit Water-mat	*Althenia bilocularis*	*Yes*	No	No	1	2004
Plant	Smooth Rice-flower	*Pimelea glauca*	*Yes*	No	No	1	1984
Plant	Smooth Willow-herb	*Epilobium billardiereanum subsp. billardiereanum*	*Yes*	No	No	1	2012
Plant	Soft Brome	*Bromus hordeaceus*	*Yes*	No	No	7	1984-2012
Plant	Soursob	*Oxalis pes-caprae*	*Yes*	No	No	2	1996-2005
Plant	Southern Cane-grass	*Eragrostis infecunda*	*Yes*	No	No	3	2011-2015
Plant	Southern Sea-heath	*Frankenia pauciflora var. gunnii*	*Yes*	No	No	6	1976-1996
Plant	Sowbane	*Chenopodium murale*	*Yes*	No	No	5	1984-2015
Plant	Spear Grass	*Austrostipa spp.*	*Yes*	No	No	3	2004-2015
Plant	Spear Thistle	*Cirsium vulgare*	*Yes*	No	No	12	1984-2015
Plant	Spear-grass spp.	*Austrostipa spp.*	*Yes*	No	No	5	1984-2002
Plant	Spiked Cudweed	*Gamochaeta purpurea s.s.*	*Yes*	No	No	1	2004
Plant	Spiny Peppercress	*Lepidium aschersonii*	*No*	No	No	-	-
Plant	Spiny Rush	*Juncus acutus subsp. acutus*	*Yes*	No	No	1	1996
Plant	Spreading Crassula	*Crassula decumbens var. decumbens*	*Yes*	No	No	1	2005
Plant	Squirrel-tail Fescue	*Vulpia bromoides*	*Yes*	No	No	5	1984-2012
Plant	Squirting Cucumber	*Ecballium elaterium*	*Yes*	No	No	2	1984
Plant	Stalked Crassula	*Crassula closiana*	*Yes*	No	No	1	1984
Plant	Star Cudweed	*Euchiton involucratus s.s.*	*Yes*	No	No	1	1984
Plant	Stinkwort	*Dittrichia graveolens*	*Yes*	No	No	6	1984-2004
Plant	Strawberry Clover	*Trifolium fragiferum var. fragiferum*	*Yes*	No	No	2	1984-2012
Plant	Streaked Arrowgrass	*Triglochin striata*	*Yes*	No	No	2	1984-1996
Plant	Subterranean Clover	*Trifolium subterraneum*	*Yes*	No	No	3	1984-2005
Plant	Sugar Gum	*Eucalyptus cladocalyx*	*Yes*	No	No	2	1984-2004
Plant	Sunshine Diuris, Fragrant Doubletail, White Diuris	*Diuris fragrantissima*	*No*	No	No	-	-
Plant	Swamp Everlasting, Swamp Paper Daisy	*Xerochrysum palustre*	*No*	No	No	-	-
Plant	Swamp Fireweed, Smooth-fruited Groundsel	*Senecio psilocarpus*	*No*	No	No	-	-
Plant	Sweet Melilot	*Melilotus indicus*	*Yes*	No	No	3	1984
Plant	Tangled Lignum	*Duma florulenta*	*Yes*	No	No	12	1984-2015
Plant	Tiny Flat-sedge	*Isolepis levynsiana*	*Yes*	No	No	1	1984
Plant	Toad Rush	*Juncus bufonius*	*Yes*	No	No	1	1984
Plant	Toowoomba Canary-grass	*Phalaris aquatica*	*Yes*	No	No	7	2004-2015

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Plant	Trailing Hemichroa	*Hemichroa pentandra*	*Yes*	No	No	3	1984-2014
Plant	Trailing Hop-bush	*Dodonaea procumbens*	*No*	No	No	-	-
Plant	Tufted Bluebell	*Wahlenbergia capillaris s.l.*	*Yes*	No	No	1	1984
Plant	Turnip	*Brassica spp.*	*Yes*	No	No	3	2011-2015
Plant	Tussock Grass	*Poa spp.*	*Yes*	No	No	6	2004
Plant	Twiggy Turnip	*Brassica fruticulosa*	*Yes*	No	No	1	2005
Plant	Twining Toadflax	*Kickxia elatine subsp. crinita*	*Yes*	No	No	1	2004
Plant	Upright Water-milfoil	*Myriophyllum crispatum*	*Yes*	No	No	1	2005
Plant	Variable Plantain	*Plantago varia*	*Yes*	No	No	1	1984
Plant	Variable Willow-herb	*Epilobium billardiereanum*	*Yes*	No	No	3	1984-2005
Plant	Wall Fumitory	*Fumaria muralis subsp. muralis*	*Yes*	No	No	1	2005
Plant	Wallaby Grass	*Rytidosperma spp.*	*Yes*	No	No	3	2011-2015
Plant	Water Buttons	*Cotula coronopifolia*	*Yes*	No	No	3	1984-2005
Plant	Water Couch	*Paspalum distichum*	*Yes*	No	No	2	1984-1992
Plant	Water Milfoil	*Myriophyllum spp.*	*Yes*	No	No	3	1984-2015
Plant	Water Plantain	*Alisma plantago-aquatica*	*Yes*	No	No	1	2005
Plant	Water Tassel	*Ruppia maritima s.s.*	*Yes*	No	No	1	1962
Plant	Waterlily	*Nymphaea spp.*	*Yes*	No	No	1	2005
Plant	Weeping Wallaby-grass	*Rytidosperma penicillatum*	*Yes*	No	No	1	2002
Plant	White Clover	*Trifolium repens var. repens*	*Yes*	No	No	1	2005
Plant	Wild Oat	*Avena fatua*	*Yes*	No	No	4	2004-2012
Plant	Wimmera Rye-grass	*Lolium rigidum*	*Yes*	No	No	1	2005
Plant	Windmill Grass	*Chloris truncata*	*Yes*	No	No	5	1984-2015
Plant	Wireweed	*Polygonum arenastrum*	*Yes*	No	No	2	2011-2015
Plant	Wood Sorrel	*Oxalis spp. (naturalised)*	*Yes*	No	No	1	2012
Plant	Woodland Swamp-daisy	*Brachyscome paludicola*	*Yes*	No	No	2	1984-2004
Plant	Woodruff	*Asperula spp.*	*Yes*	No	No	2	2011-2015
Plant	Yellow Horned-poppy	*Glaucium flavum*	*Yes*	No	No	1	1984
Plant	Yellow Rush-lily	*Tricoryne elatior*	*Yes*	No	No	1	1984
Plant	Yellow Wood-sorrel	*Oxalis corniculata s.l.*	*Yes*	No	No	4	1984-2012
Plant	Yorkshire Fog	*Holcus lanatus*	*Yes*	No	No	2	1984-2012
Reptile	Common Blue-tongued Lizard	*Tiliqua scincoides*	*Yes*	No	No	2	1990-1992
Reptile	Grass skink FORM (P.pag/cry)	*Pseudemoia form cryodoma/pagenstecheri*	*Yes*	No	No	1	1990
Reptile	Green Turtle	*Chelonia mydas*	*No*	No	No	-	-
Reptile	Leatherback Turtle, Leathery Turtle, Luth	*Dermochelys coriacea*	*No*	No	No	-	-
Reptile	Little Whip Snake	*Parasuta flagellum*	*Yes*	No	No	7	1953-1992
Reptile	Loggerhead Turtle	*Caretta caretta*	*No*	No	No	-	-
Reptile	Striped Legless Lizard, Striped Snake-lizard	*Delma impar*	*No*	No	No	-	-
Reptile	Swamp Skink, Eastern Mourning Skink	*Lissolepis coventryi*	*No*	No	No	-	-
Reptile	Tiger Snake	*Notechis scutatus*	*Yes*	No	No	2	1990-2016
Reptile	Unidentified skink	*Scincidae spp.*	*Yes*	No	No	2	1963-1992
Reptile	Victorian Grassland Earless Dragon	*Tympanocryptis pinguicolla*	*No*	No	No	-	-
Reptile	White-lipped Snake	*Drysdalia coronoides*	*Yes*	No	No	1	1992
Shark	Grey Nurse Shark	*Carcharias taurus*	*No*	No	No	-	-
Shark	Porbeagle, Mackerel Shark	*Lamna nasus*	*No*	No	No	-	-
Shark	White Shark, Great White Shark	*Carcharodon carcharias*	*No*	No	No	-	-

Table C2 - Mammal and Bird Screening

General Information		Identification and Conservation					Data Source	Bodyweight (g)	
Class	Species	Identified	Conservation Significant	FFG Status	EPBC Status	Type of Presence	Source	Lower	Upper
Bird	Antipodean Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	5000	7100
Bird	Australasian Bittern	Yes	Yes	Critically Endangered	Endangered	-	BirdLife Australia	900	1400
Bird	Australasian Shoveler	Yes	Yes	Vulnerable	-	-	BirdLife Australia	545	852
Bird	Australian Fairy Tern	No	Yes	-	Vulnerable	Migratory Marine Birds	BirdLife Australia	64	80
Bird	Australian Painted Snipe	Yes	Yes	Critically Endangered	Endangered	Migratory Wetlands Species	BirdLife Australia	125	130
Bird	Australian Pelican	Yes	No	-	-	-	BirdLife Australia	4000	6800
Bird	Australian White Ibis	Yes	No	-	-	-	BirdLife Australia	1400	2500
Bird	Bar-tailed Godwit	Yes	Yes	Vulnerable	-	Migratory Wetlands Species	BirdLife Australia	300	500
Bird	Black Falcon	Yes	Yes	Critically Endangered	-	-	BirdLife Australia	630	900
Bird	Black Swan	Yes	No	-	-	-	BirdLife Australia	3700	8750
Bird	Black-browed Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	2800	4500
Bird	Black-tailed Godwit	Yes	Yes	Critically Endangered	Endangered	-	BirdLife Australia	200	300
Bird	Blue-billed Duck	Yes	Yes	Vulnerable	-	-	BirdLife Australia	500	600
Bird	Blue-winged Parrot	Yes	Yes	-	Vulnerable	Migratory Marine Birds	BirdLife Australia	50	60
Bird	Broad-billed Sandpiper	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	37	55
Bird	Broad-billed Sandpiper	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	37	55
Bird	Brown Noddy	No	Yes	-	-	Migratory Marine Birds	BirdLife Australia	185	185
Bird	Brown Treecreeper (south-eastern)	No	Yes	-	Vulnerable	-	BirdLife Australia	30	35
Bird	Buller's Albatross, Pacific Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	2400	3100
Bird	Campbell Albatross, Campbell Black-browed Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	3000	5000
Bird	Caspian Tern	Yes	Yes	Vulnerable	-	-	BirdLife Australia	610	1323
Bird	Chestnut Teal	Yes	No	-	-	-	BirdLife Australia	500	800
Bird	Chestnut-rumped Heathwren	Yes	Yes	Vulnerable	-	-	BirdLife Australia	13	20
Bird	Common Greenshank, Greenshank	Yes	Yes	Endangered	Endangered	Migratory Marine Species	BirdLife Australia	150	300
Bird	Common Sandpiper	Yes	Yes	Vulnerable	-	Migratory Wetlands Species	Birdlife Australia	38	84
Bird	Curlew Sandpiper	Yes	Yes	Critically Endangered	Critically Endangered	-	BirdLife Australia	53	89
Bird	Diamond Firetail	Yes	Yes	Vulnerable	Vulnerable	-	BirdLife Australia	17	20
Bird	Double-banded Plover	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	60	80
Bird	Dusky Moorhen	Yes	No	-	-	-	BirdLife Australia	350	700
Bird	Eastern Curlew, Far Eastern Curlew	Yes	Yes	Critically Endangered	Critically Endangered	-	BirdLife Australia	390	1400
Bird	Eastern Great Egret	Yes	Yes	Vulnerable	-	-	BirdLife Australia	700	1200
Bird	Elegant Parrot	Yes	Yes	Vulnerable	-	-	BirdLife Australia	40	50
Bird	Eurasian Coot	Yes	No	-	-	-	BirdLife Australia	500	600
Bird	Fairy Prion (southern)	No	Yes	-	Vulnerable	-	BirdLife Australia	90	175
Bird	Fairy Tern	Yes	Yes	Critically Endangered	-	-	BirdLife Australia	70	70
Bird	Flesh-footed Shearwater, Fleshy-footed Shearwater	No	Yes	-	-	Migratory Marine Birds	BirdLife Australia	580	750
Bird	Fork-tailed Swift	Yes	Yes	-	-	Migratory Marine Birds	BirdLife Australia	30	40
Bird	Gang-gang Cockatoo	No	Yes	-	Endangered	-	BirdLife Australia	250	260
Bird	Gould's Petrel, Australian Gould's Petrel	No	Yes	-	Endangered	-	BirdLife Australia	134	220

Table C2 - Mammal and Bird Screening

General Information		Identification and Conservation					Data Source	Bodyweight (g)	
Class	Species	Identified	Conservation Significant	FFG Status	EPBC Status	Type of Presence	Source	Lower	Upper
Bird	Great Knot	Yes	Yes	Critically Endangered	Vulnerable	-	BirdLife Australia	130	190
Bird	Greater Sand Plover, Large Sand Plover	Yes	Yes	Vulnerable	Vulnerable	-	BirdLife Australia	75	100
Bird	Grey Falcon	No	Yes	-	Vulnerable	Migratory Marine Birds	BirdLife Australia	350	600
Bird	Grey Goshawk	Yes	Yes	Endangered	-	-	BirdLife Australia	350	680
Bird	Grey Plover	Yes	Yes	Vulnerable	-	-	BirdLife Australia	160	300
Bird	Grey-tailed Tattler	Yes	Yes	Critically Endangered	-	Migratory Wetlands Species	BirdLife Australia	96	127
Bird	Indian Yellow-nosed Albatross	No	Yes	-	Vulnerable	Migratory Wetlands Species	BirdLife Australia	1780	2840
Bird	Latham's Snipe, Japanese Snipe	Yes	Yes	-	Vulnerable	-	BirdLife Australia	150	230
Bird	Lesser Sand Plover	Yes	Yes	Endangered	-	-	BirdLife Australia	56	71
Bird	Lewin's Rail	Yes	Yes	Vulnerable	-	-	BirdLife Australia	75	100
Bird	Little Black Cormorant	Yes	No	-	-	-	BirdLife Australia	520	1210
Bird	Little Curlew, Little Whimbrel	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	118	221
Bird	Little Eagle	Yes	Yes	Vulnerable	-	-	BirdLife Australia	630	1000
Bird	Little Egret	Yes	Yes	Endangered	-	-	BirdLife Australia	325	390
Bird	Little Pied Cormorant	Yes	No	-	-	-	BirdLife Australia	410	880
Bird	Little Tern	Yes	Yes	Critically Endangered	Vulnerable	Migratory Marine Birds	BirdLife Australia	40	50
Bird	Long-toed Stint	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	20	30
Bird	Marsh Sandpiper, Little Greenshank	Yes	Yes	Endangered	-	Migratory Wetlands Species	BirdLife Australia	55	100
Bird	Masked Lapwing	Yes	No	-	-	-	BirdLife Australia	250	370
Bird	Musk Duck	Yes	Yes	Vulnerable	-	-	BirdLife Australia	1550	2400
Bird	Northern Buller's Albatross, Pacific Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	2400	3100
Bird	Northern Giant Petrel	No	Yes	-	Vulnerable	Migratory Marine Birds	BirdLife Australia	3800	5000
Bird	Northern Royal Albatross	No	Yes	-	Endangered	-	BirdLife Australia	8000	10000
Bird	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit	No	Yes	-	Endangered	Migratory Marine Species	BirdLife Australia	190	630
Bird	Orange-bellied Parrot	Yes	Yes	Critically Endangered	Critically Endangered	-	BirdLife Australia	40	50
Bird	Osprey	No	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	1000	1500
Bird	Pacific Black Duck	Yes	No	-	-	-	BirdLife Australia	950	1100
Bird	Pacific Golden Plover	Yes	Yes	Vulnerable	-	Migratory Wetlands Species	BirdLife Australia	120	175
Bird	Pectoral Sandpiper	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	52	95
Bird	Pin-tailed Snipe	No	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	100	140
Bird	Plains-wanderer	No	Yes	-	Critically Endangered	-	BirdLife Australia	40	95
Bird	Plumed Egret	Yes	Yes	Critically Endangered	-	-	BirdLife Australia	360	401
Bird	Red Knot, Knot	Yes	Yes	Endangered	Vulnerable	-	BirdLife Australia	92	200
Bird	Red-necked Stint	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	26	28
Bird	Regent Honeyeater	No	Yes	-	Critically Endangered	Migratory Wetlands Species	BirdLife Australia	40	45
Bird	Royal Spoonbill	Yes	No	-	-	-	BirdLife Australia	1500	1800

Table C2 - Mammal and Bird Screening

General Information		Identification and Conservation					Data Source	Bodyweight (g)	
Class	Species	Identified	Conservation Significant	FFG Status	EPBC Status	Type of Presence	Source	Lower	Upper
Bird	Ruddy Turnstone	Yes	Yes	Endangered	Vulnerable	Migratory Marine Birds	BirdLife Australia	115	115
Bird	Ruff	Yes	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	110	180
Bird	Salvin's Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	3400	4400
Bird	Sharp-tailed Sandpiper	Yes	Yes	-	Vulnerable	-	BirdLife Australia	66	91
Bird	Shy Albatross	No	Yes	-	Endangered	-	BirdLife Australia	3400	4400
Bird	Sooty Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	2400	2700
Bird	Sooty Shearwater	No	Yes	-	Vulnerable	Migratory Terrestrial Species	BirdLife Australia	650	950
Bird	South-eastern Hooded Robin, Hooded Robin (south-eastern)	No	Yes	-	Endangered	-	BirdLife Australia	17	27
Bird	Southern Giant-Petrel, Southern Giant Petrel	No	Yes	-	Endangered	-	BirdLife Australia	3800	5000
Bird	Southern Royal Albatross	No	Yes	-	Vulnerable	-	BirdLife Australia	8000	10000
Bird	Southern Whiteface	Yes	Yes	-	Vulnerable	-	BirdLife Australia	10	15
Bird	Swift Parrot	Yes	Yes	Critically Endangered	Critically Endangered	-	BirdLife Australia	60	80
Bird	Swinhoe's Snipe	No	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	100	140
Bird	Terek Sandpiper	Yes	Yes	Endangered	-	-	BirdLife Australia	45	110
Bird	Wandering Albatross	No	Yes	-	Vulnerable	Migratory Marine Species	BirdLife Australia	6000	11000
Bird	Whimbrel	No	Yes	-	-	Migratory Wetlands Species	BirdLife Australia	305	470
Bird	White-bellied Sea-Eagle	Yes	Yes	Endangered	-	-	BirdLife Australia	2500	4200
Bird	White-capped Albatross	No	Yes	-	Vulnerable	Migratory Wetlands Species	BirdLife Australia	3400	4400
Bird	White-faced Heron	Yes	No	-	-	-	BirdLife Australia	450	880
Bird	White-throated Needletail	Yes	Yes	Vulnerable	Vulnerable	Migratory Wetlands Species	BirdLife Australia	115	120
Bird	Wood Sandpiper	Yes	Yes	Endangered	-	Migratory Wetlands Species	BirdLife Australia	46	63
Bird	Yellow Wagtail	No	Yes	-	-	Migratory Terrestrial Species	BirdLife Australia	16	23
Mammal	Australian Fur-seal, Australo-African Fur-seal	No	No	-	-	-	Australian Museum	41000	360000
Mammal	Black Rat	Yes	No	-	-	-	Australian Museum	95	340
Mammal	Brown Rat	Yes	No	-	-	-	Australian Museum	200	480
Mammal	Common Dolphin, Short-beaked Common Dolphin	No	No	-	-	-	DRA (2025)	70000	110000
Mammal	Dingo	Yes	No	-	-	-	Australian Museum	12000	24000
Mammal	Dusky Dolphin	No	Yes	-	-	Migratory Marine Species	Australian Museum	69000	85000
Mammal	European Rabbit	Yes	No	-	-	-	Australian Museum	1200	2500
Mammal	Grey-headed Flying-fox	No	Yes	-	Vulnerable	Migratory Mammal	Australian Museum	600	1000
Mammal	House Mouse	Yes	No	-	-	-	Agriculture Victoria	10	25
Mammal	Humpback Whale	No	Yes	-	-	Migratory Marine Species	Australian Museum	40000000	40000000
Mammal	Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin	No	No	-	-	-	IWC (2025)	230000	230000
Mammal	Long-nosed Fur-seal, New Zealand Fur-seal	No	No	-	-	-	Australian Museum	-	-
Mammal	Pygmy Right Whale	No	Yes	-	-	Migratory Marine Species	Australian Museum	3000000	4000000
Mammal	Red Fox	Yes	No	-	-	-	Agriculture Victoria	4000	8000
Mammal	Southern Right Whale	No	Yes	-	Endangered	-	Australian Museum	80000000	80000000
Mammal	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	No	Yes	-	Endangered	-	OEH (2020)	2000	3500

Table C2 - Mammal and Bird Screening

General Information		NAGY Food Intake Rates						Area Use	
Class	Species	Applicable Categories	Adopted Category	a	b	Food Intake g FMI/day	Bodyweight Normalised g(FMI)/kg(BW)/day	Migration	Home Range
Bird	Antipodean Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	890	0.18	Migratory	
Bird	Australasian Bittern	All birds, Pelecaniformes, Carnivorous birds	Pelecaniformes	1.02	0.845	320	0.36	Sedentary	Sedentary in permanent wetlands
Bird	Australasian Shoveler	All birds, Anseriformes, Omnivorous birds	All birds	2.065	0.689	160	0.29	Dispersive	800 km from nest sites
Bird	Australian Fairy Tern	All birds, marine birds	Marine Birds	3.22	0.66	50	0.78	Protected migratory	Recovered >12 years later 13 km from banding site. Recovered >15 years later 29km from banding site.
Bird	Australian Painted Snipe	All birds, Charadriiformes, Omnivorous birds	All birds	2.065	0.689	58	0.46	Unknown, possibly migratory	May be dispersive (move to flooded areas)
Bird	Australian Pelican	All birds, Pelecaniformes, Marine birds, Carnivorous birds	Pelecaniformes	1.02	0.845	1100	0.28	Dispersive	-
Bird	Australian White Ibis	All birds, Pelecaniformes, Carnivorous birds	Pelecaniformes	1.02	0.845	460	0.33	Resident	Resident (sedentary)
Bird	Bar-tailed Godwit	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	140	0.47	Migratory (breed in northern hemisphere) August to November in Australia	Dispersive (substantial local movement)
Bird	Black Falcon	All birds, carnivore	Carnivore	3.048	0.665	220	0.35	Partly migratory and partly dispersive (tempered by seasonal conditions and availability of food)	Poorly known, evidence of dispersive
Bird	Black Swan	All birds, Anseriformes, Herbivorous birds	All birds	2.065	0.689	590	0.16	Sedentary (adults) / dispersive (young)	Sedentary in permanent wetlands
Bird	Black-browed Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Carnivorous birds	3.048	0.665	600	0.21	Migratory in Australia April to August	430 km foraging range
Bird	Black-tailed Godwit	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	110	0.55	Migratory (breed in northern hemisphere) August to November in Australia	-
Bird	Blue-billed Duck	All birds, Anseriformes, Temperate meadow birds, Omnivorous birds	All birds	2.065	0.689	150	0.3	Dispersive (short-distance movements)	Resident (with irregular dispersion)
Bird	Blue-winged Parrot	All birds, Psittaciformes, Temperate forest birds, Herbivorous birds, Nectarivores birds	Nectarivores birds	3.475	0.679	49	0.98	Mostly migratory, poorly known	-
Bird	Broad-billed Sandpiper	All birds, Charadriiformes, Omnivorous birds	All birds	2.065	0.689	25	0.68	Migratory (breed in northern hemisphere) October to March in Australia	Poorly known, evidence of fidelity
Bird	Broad-billed Sandpiper	All birds, Charadriiformes, Omnivorous birds	All birds	2.065	0.689	25	0.68	Migratory (breed in northern hemisphere) October to March in Australia	Poorly known, evidence of fidelity
Bird	Brown Noddy	All birds, carnivores	Carnivore	3.048	0.665	98	0.53	Protected migratory	-
Bird	Brown Treecreeper (south-eastern)	All birds, Passerines, Temperate forest birds, Insectivorous birds	All birds	2.065	0.689	22	0.73	Resident	<10 km
Bird	Buller's Albatross, Pacific Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	540	0.23	Migratory (Poorly known), adults local	-
Bird	Campbell Albatross, Campbell Black-browed Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	630	0.21	Migratory	Poorly known, evidence of dispersive
Bird	Caspian Tern	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	220	0.36	Partly resident, partly dispersive	Up to 10km from nest sites, otherwise dispersive.
Bird	Chestnut Teal	All birds, Anseriformes, Temperate meadow birds, Omnivorous birds	All birds	2.065	0.689	150	0.3	Migratory	Dispersive
Bird	Chestnut-rumped Heathwren	All birds, omnivore	Omnivore	2.094	0.627	10	0.77	Little known - sedentary or resident with no long distance movements known	<10 km
Bird	Common Greenshank, Greenshank	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	88	0.59	Protected migratory	During non-breeding season, apparently resident, though possibly some dispersive movements
Bird	Common Sandpiper	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	34	0.89	Migratory (breed Eurasia) July to February in Australia	Poorly known, dispersive
Bird	Curlew Sandpiper	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	43	0.81	Migratory (breed in northern hemisphere) August to April in Australia	Evidence of residency, return to same site (e.g. bay)
Bird	Diamond Firetail	All birds, Passerines, Temperate forest birds, Granivorous birds	All birds	2.065	0.689	15	0.88	Resident or sedentary	90% <10 km, 10% >10 km
Bird	Double-banded Plover	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	46	0.77	Mostly migratory, some sedentary (breed in NZ) March to August in Australia	Evidence of residency, return to same site (e.g. bay)
Bird	Dusky Moorhen	All birds, Gruiformes, Temperate meadow birds, Omnivorous birds	All birds	2.065	0.689	120	0.34	Resident (adults observed to stay in same area for over 8 years)	Sedentary or dispersive
Bird	Eastern Curlew, Far Eastern Curlew	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	170	0.44	Migratory	Long distance migratory links - dispersive. Migration usually coastal (100 m from shore)
Bird	Eastern Great Egret	All birds, Pelecaniformes, Temperate meadow birds, Carnivorous birds	Pelecaniformes	1.02	0.845	260	0.37	0	0
Bird	Elegant Parrot	All birds, omnivore	Omnivore	2.094	0.627	21	0.53	Not well known - variously considered resident or nomadic	<10 km
Bird	Eurasian Coot	All birds, Gruiformes, Temperate meadow birds, Omnivorous birds	All birds	2.065	0.689	150	0.3	Dispersive	Dispersive
Bird	Fairy Prion (southern)	All birds, Procellariforms, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	62	0.69	Migratory or dispersive	Dispersive (foraging flights >320 km possible)
Bird	Fairy Tern	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	53	0.76	Partly migratory and partly non-migratory (poorly known)	Sedentary (appear not to move regularly)
Bird	Flesh-footed Shearwater, Fleshy-footed Shearwater	All birds, marine birds	Marine Birds	3.22	0.66	210	0.36	Protected migratory	>100 km
Bird	Fork-tailed Swift	All birds, Apodiformes, Temperate forest birds, Insectivorous birds	Apodiformes	1.466	1.216	92	3.1	Migratory (breed in northern hemisphere)	-
Bird	Gang-gang Cockatoo	All birds, Psittaciformes, Temperate forest birds, Herbivorous birds, Nectarivores birds	Nectarivores birds	3.475	0.679	150	0.6	Unknown, possibly migratory	limited data <10 km
Bird	Gould's Petrel, Australian Gould's Petrel	All birds, marine birds	Marine Birds	3.22	0.66	82	0.61	Migratory	Movements unknown away from breeding island

Table C2 - Mammal and Bird Screening

General Information		NAGY Food Intake Rates						Area Use	
Class	Species	Applicable Categories	Adopted Category	a	b	Food Intake g FMI/day	Bodyweight Normalised g(FMI)/kg(BW)/day	Migration	Home Range
Bird	Great Knot	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	79	0.61	Mostly migratory (breed in northern hemisphere) August to March in Australia	Evidence of fidelity.
Bird	Greater Sand Plover, Large Sand Plover	All birds, charadriformes	All Birds	2.065	0.689	40	0.53	Migratory	Strong fidelity to non-breeding sites
Bird	Grey Falcon	All birds, carnivore	Carnivore	3.048	0.665	150	0.43	Protected migratory	Poorly known - some resident pairs others dispersive or migratory
Bird	Grey Goshawk	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	150	0.43	Apparently resident	
Bird	Grey Plover	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	91	0.57	Migratory (breed in northern hemisphere) September to January in Australia	Dispersive
Bird	Grey-tailed Tattler	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	63	0.66	Mostly migratory (breed in northern hemisphere) August to April in Australia	Dispersive
Bird	Indian Yellow-nosed Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	450	0.25	Protected migratory	
Bird	Latham's Snipe, Japanese Snipe	All birds, omnivore	Omnivore	2.094	0.627	48	0.32	Migratory Arrive as early as late August with peak numbers in December and January. Leave by end of February.	Within 12km often in same season or 1-2 years later.
Bird	Lesser Sand Plover	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	44	0.79	Migratory (breed in northern hemisphere) Spring to Summer in Australia	Dispersive
Bird	Lewin's Rail	All birds, Gruiformes, Temperate forest birds, Omnivorous birds	All birds	2.065	0.689	40	0.53	May be partly migratory	Resident/sedentary (present at some sites all year)
Bird	Little Black Cormorant	All birds, Pelecaniformes, Marine birds, Carnivorous birds	Pelecaniformes	1.02	0.845	200	0.38	0	0
Bird	Little Curlew, Little Whimbrel	All birds, omnivore	Omnivore	2.094	0.627	42	0.36	Protected migratory October to March in Australia during non-breeding season. Dispersive movements.	Dispersive - driven by rainfall and food availability
Bird	Little Eagle	All birds, carnivore	Carnivore	3.048	0.665	220	0.35	Partly migratory - some resident year round, others dispersive	6-130 km - appeared to disperse randomly.
Bird	Little Egret	All birds, Pelecaniformes, Carnivorous birds	Carnivorous birds	3.048	0.665	140	0.43	Dispersive	Short distances
Bird	Little Pied Cormorant	All birds, Pelecaniformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	170	0.41	Dispersive	300 km in 6 months)
Bird	Little Tern	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	36	0.9	Migratory or partly migratory	Dispersive (frequent some areas for up to 2 months before migrating)
Bird	Long-toed Stint	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	22	1.1	Migratory (breed in northern hemisphere) Summer residency in Australia is dispersive.	Sedentary in permanent wetlands
Bird	Marsh Sandpiper, Little Greenshank	All birds, carnivore	Carnivore	3.048	0.665	44	0.8	Protected migratory. Mostly arrive in Australia in September and disperse southwards during non-breeding. Begin to leave in March	-
Bird	Masked Lapwing	All birds, Charadriiformes, Temperate meadow birds, Omnivorous birds	All birds	2.065	0.689	93	0.37	Migratory	Resident
Bird	Musk Duck	All birds, Anseriformes, Omnivorous birds	All birds	2.065	0.689	330	0.21	Sedentary / dispersive (breeding)	Sedentary in permanent wetlands
Bird	Northern Buller's Albatross, Pacific Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	540	0.23	0	0
Bird	Northern Giant Petrel	All birds, Procellariforms, Marine birds, Carnivorous birds	Carnivorous birds	3.048	0.665	730	0.19	Partly migratory	181 km foraging range
Bird	Northern Royal Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	1200	0.15	Migratory. In Australia during non-breeding season.	-
Bird	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	100	0.53	Protected migratory. In Australia during non-breeding season.	-
Bird	Orange-bellied Parrot	All birds, Psittaciformes, Temperate forest birds, Herbivorous birds, Nectarivores birds	Nectarivores birds	3.475	0.679	43	1.1	Migratory (breed southwest Tasmania)	1-2 km from roost
Bird	Osprey	All birds, Accipitriformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	300	0.3	Mostly sedentary	<1 km from waterway
Bird	Pacific Black Duck	All birds, Anseriformes, Omnivorous birds	All birds	2.065	0.689	230	0.24	Dispersive	Sedentary
Bird	Pacific Golden Plover	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	74	0.62	Mostly migratory (breed in northern hemisphere) September to February in Australia	Evidence of residency, return to same site
Bird	Pectoral Sandpiper	All birds, Charadriiformes, Omnivorous birds	All birds	2.065	0.689	31	0.6	Mostly migratory (breed in northern hemisphere) September to March in Australia	Possibly dispersive
Bird	Pin-tailed Snipe	All birds, Charadriiformes, Temperate meadow birds, Carnivorous birds	Carnivorous birds	3.048	0.665	65	0.65	Migratory (breed in northern hemisphere) September to March in Australia	Dispersive
Bird	Plains-wanderer	All birds, omnivore	Omnivore	2.094	0.627	21	0.53	Sedentary	10-350 m
Bird	Plumed Egret	All birds, Pelecaniformes, Carnivorous birds	Carnivorous birds	3.048	0.665	150	0.42	Poorly known, sedentary	Possible dispersion
Bird	Red Knot, Knot	All birds, omnivore	Omnivore	2.094	0.627	36	0.39	Migratory - In Australia during non-breeding between September and March	
Bird	Red-necked Stint	All birds, Charadriiformes, Omnivorous birds	All birds	2.065	0.689	19	0.73	Migratory (breed in northern hemisphere) August to March in Australia	10-25 km Sedentary in permanent wetlands
Bird	Regent Honeyeater	All birds, Passerines, Temperate forest birds, Nectarivores birds	Nectarivores birds	3.475	0.679	43	1.1	Unknown, possibly migratory	81% <10 km, 87%<100 km
Bird	Royal Spoonbill	All birds, Pelecaniformes, Marine birds, Carnivorous birds	Pelecaniformes	1.02	0.845	490	0.33	Sedentary at most coastal sites	Sedentary

Table C2 - Mammal and Bird Screening

General Information		NAGY Food Intake Rates						Area Use	
Class	Species	Applicable Categories	Adopted Category	a	b	Food Intake g FMI/day	Bodyweight Normalised g(FMI)/kg(BW)/day	Migration	Home Range
Bird	Ruddy Turnstone	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	73	0.63	Migratory (breed in northern hemisphere) December to April in Australia	-
Bird	Ruff	All birds, Charadriiformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	71	0.65	Migratory (breed in Eurasia and Alaska) September to April in Australia	Dispersive
Bird	Salvin's Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	690	0.2	Migratory - dispersive	
Bird	Sharp-tailed Sandpiper	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	49	0.74	Migratory (breed in northern hemisphere) September to March in Australia	Dispersive
Bird	Shy Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Carnivorous birds	3.048	0.665	680	0.2	Poorly known. Adults may move only locally	0
Bird	Sooty Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	540	0.23	Dispersive, possibly migratory	1200 km
Bird	Sooty Shearwater	All birds, Procellariforms, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	230	0.35	Migratory (breeds in Australia) August to April in Australia	-
Bird	South-eastern Hooded Robin, Hooded Robin (south-eastern)	All birds, Passerines, Temperate forest birds, Insectivorous birds	All birds	2.065	0.689	15	0.88	Resident or sedentary.	<10 km
Bird	Southern Giant-Petrel, Southern Giant Petrel	All birds, Procellariforms, Marine birds, Carnivorous birds	Carnivorous birds	3.048	0.665	730	0.19	Partially migratory; some adults resident at most sites	180-500 km foraging range
Bird	Southern Royal Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	1200	0.15	Migratory, possibly circumpolar	
Bird	Southern Whiteface	All birds, Passerines, Temperate forest birds, Insectivorous birds	All birds	2.065	0.689	10	1	Sedentary or resident	<10 km
Bird	Swift Parrot	All birds, Psittaciformes, Temperate forest birds, Nectarivores birds, Herbivorous birds	Nectarivores birds	3.475	0.679	56	0.93	Migratory (breed Tasmania)	5-6 km foraging
Bird	Swinhoe's Snipe	All birds, Charadriiformes, Temperate meadow birds, Carnivorous birds	Carnivorous birds	3.048	0.665	65	0.65	Migratory (breed in northern hemisphere) Movements in Australia not known	Dispersive
Bird	Terek Sandpiper	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	38	0.84	Mostly migratory (breed in northern hemisphere) September to May in Australia	Dispersive
Bird	Wandering Albatross	All birds, procellariformes, marine birds	Marine Birds	3.22	0.66	1000	0.17	Migratory or dispersive	
Bird	Whimbrel	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	140	0.46	Migratory (breed in northern hemisphere) August to March in Australia	Dispersive
Bird	White-bellied Sea-Eagle	All birds, Accipitriformes, Carnivorous birds	Carnivorous birds	3.048	0.665	550	0.22	Sedentary (adults) / dispersive (young)	100 km2
Bird	White-capped Albatross	All birds, Procellariforms, Marine birds, Carnivorous birds	Carnivorous birds	3.048	0.665	680	0.2	Some populations migratory to waters off South Africa or South America, others remain at or near colonies all year.	-
Bird	White-faced Heron	All birds, Pelecaniformes, Marine birds, Carnivorous birds	Marine birds	3.221	0.658	180	0.4	Locally nomadic	>100 km
Bird	White-throated Needletail	All birds, Apodiformes, Temperate forest birds, Insectivorous birds	Apodiformes	1.466	1.216	470	4.1	Migratory (breed in northern hemisphere) September to February in Australia	Dispersive
Bird	Wood Sandpiper	All birds, Charadriiformes, Carnivorous birds	Carnivorous birds	3.048	0.665	39	0.85	Migratory (breed in northern hemisphere) September to March in Australia	Poorly known, dispersive
Bird	Yellow Wagtail	All birds, Passerines, Temperate meadow birds, Insectivorous birds	All birds	2.065	0.689	14	0.88	Migratory (breed in Africa) August to April in Australia	Dispersive
Mammal	Australian Fur-seal, Australo-African Fur-seal	All mammals, carnivores	Carnivores	0.469	0.848	3800	0.093	Non-migratory	Wide home range
Mammal	Black Rat	All mammals, rodentia	Rodentia	0.588	0.864	30	0.32	Non-migratory	Local
Mammal	Brown Rat	All mammals, rodentia	Rodentia	0.588	0.864	57	0.29	Non-migratory	Local
Mammal	Common Dolphin, Short-beaked Common Dolphin	All mammals, carnivores	Carnivores	0.469	0.848	6000	0.086	Non-migratory	Local
Mammal	Dingo	All mammals, carnivores	Carnivore	0.469	0.848	1300	0.11	Non-migartory	Unknown
Mammal	Dusky Dolphin	All mammals, Eutherians, Carnivora, Carnivores	Carnivores	0.469	0.848	5900	0.086	Migratory	
Mammal	European Rabbit	All mammals, Eutherians, Rodentia, Herbivores, Granivores, Terrestrial mesic mammals	Rodentia	0.588	0.864	270	0.23	Resident	
Mammal	Grey-headed Flying-fox	All mammals, Chiropteran (bats), Diprotodont marsupials, Herbivores, Terrestrial mesic mammals	Herbivores	2.606	0.628	140	0.23	Dispersive	
Mammal	House Mouse	All mammals, rodentia	Rodentia	0.588	0.864	4.3	0.43	Non-migratory	Local
Mammal	Humpback Whale	All mammals, Eutherians, Carnivora, Carnivores	Carnivores	0.469	0.848	1300000	0.033	Migratory	
Mammal	Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin	All mammals, carnivores	Carnivores	0.469	0.848	17000	0.074	Non-migratory	Local
Mammal	Long-nosed Fur-seal, New Zealand Fur-seal	All mammals, carnivores	Carnivores	0.469	0.848	-	-	-	Unlikely to be present
Mammal	Pygmy Right Whale	All mammals, Eutherians, Carnivora, Carnivores	Carnivores	0.469	0.848	150000	0.05	Migratory	
Mammal	Red Fox	All mammals, Eutherians, Carnivora, Carnivores	Carnivores	0.469	0.848	530	0.13	Non-migratory	Local
Mammal	Southern Right Whale	All mammals, Eutherians, Carnivora, Carnivores	Carnivores	0.469	0.848	2400000	0.03	Migratory	
Mammal	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	All mammals, carnivores	Carnivore	0.469	0.848	295	0.15	Non-migratory	200-500 hectares

Table C2 - Mammal and Bird Screening

General Information		Trophic Level and Guild			
Class	**Species**	**Environment**	**Trophic Level**	**Guild**	**Food intake rationale**
Bird	Antipodean Albatross	Aquatic	Teriary consumer	Carnivore	Carnivore: Mostly cephalopods, many probably scavenged, also fish, rarely crustaceans.
Bird	Australasian Bittern	Aquatic	Tertiary consumer	Carnivore	Aquatic predator: eels, frogs and freshwater crayfish, occassional spiders, insects, other fish, reptiles and small mammals
Bird	Australasian Shoveler	Aquatic	Tertiary consumer	Invertivore/ omnivore	Aquatic invertivorous omnivore (48.7% insects, 23.8% plants, 21.7% molluscs, 5.8% crustaceans,)
Bird	Australian Fairy Tern	Aquatic	Tertiary consumer	Carnivore	Carnivore: Almost entirely on fish, molluscs (gastropods) and crustaceans. Plant material has been found in stomachs.
Bird	Australian Painted Snipe	Aquatic	Tertiary consumer	Omnivore	Omnivore: vegetation, seeds, insects, worms and molluscs, crustaceans and other invertebrates
Bird	Australian Pelican	Aquatic	Tertiary consumer	Carnivore	Carnivore: Mostly fish but an eclectic carnivore and scavenger taking anything from insects and small crustaceans to ducks and small dogs
Bird	Australian White Ibis	Aquatic	Tertiary consumer	Carnivore	Carnivorous: aquatic animals including fish, frogs, freshwater crayfish, crickets, beetles and earthworms
Bird	Bar-tailed Godwit	Aquatic	Tertiary consumer	Invertivore	Invertivorous: worms, molluscs, crustaceans, insects and some plants
Bird	Black Falcon	Terrestrial	Quaternary consumer	Carnivore	Insects (<0.1%- 0.9%), birds (39.2%-56.8%), mammals (54.1% - 60.2%)
Bird	Black Swan	Aquatic	Primary consumer	Herbivore	Entirely herbivorous.
Bird	Black-browed Albatross	Aquatic	Quaternary consumer	Carnivore	Carnivore (40% crustaceans, 39.5% fish)
Bird	Black-tailed Godwit	Aquatic	Tertiary consumer	Invertivore/ omnivore	Omnivorous, mainly invertebrates: invertebrates and occasionally seeds
Bird	Blue-billed Duck	Aquatic	Secondary consumer	Omnivore	Omnivorous: plants, midge, caddisfly and dragonfly larvae
Bird	Blue-winged Parrot	Terrestrial	Primary consumer	Herbivore	Herbivore (seeds of grasses)
Bird	Broad-billed Sandpiper	Aquatic	Tertiary consumer	Omnivore	Omnivorous: seeds, worms, molluscs, crustaceans and insects
Bird	Broad-billed Sandpiper	Aquatic	Tertiary consumer	Omnivore	Omnivorous: seeds, worms, molluscs, crustaceans and insects
Bird	Brown Noddy	Aquatic	Teriary consumer	Carnivore	Carnivore: mostly fish, though also take squid, pelagic molluscs, medusae, insects and even Pandanus fruit
Bird	Brown Treecreeper (south-eastern)	Terrestrial	Secondary consumer	Invertivore	Invertivorous (96-99% ants, 1-4% spiders)
Bird	Buller's Albatross, Pacific Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly squid with some fish, krill and tunicates.
Bird	Campbell Albatross, Campbell Black-browed Albatross	Aquatic	Tertiary consumer	Carnivore	Krill and fish with some cephalopods, salps and jellyfish
Bird	Caspian Tern	Aquatic	Tertiary consumer	Carnivore	Carnivorous: primarily fish (96.8%) and minor crustaceans (3.2%)
Bird	Chestnut Teal	Aquatic	Secondary consumer	Omnivore	Omnivorous: seeds, insects, plants, some molluscs and crustaceans
Bird	Chestnut-rumped Heathwren	Terrestrial	Secondary consumer	Omnivore	Seeds, leaves, monocotyledons, dicotyledons, spiders, insects
Bird	Common Greenshank, Greenshank	Aquatic	Tertiary consumer	Carnivore	Molluscs, crustaceans, insects, amphibians (frog). Fish and seeds have been found in stomachs.
Bird	Common Sandpiper	Aquatic	Tertiary consumer	Invertivore	Invertivorous: molluscs, crustaceans and insects, less common algae, seeds, worms, spiders, fish, frogs and tadpoles.
Bird	Curlew Sandpiper	Aquatic	Tertiary consumer	Invertivore/ omnivore	Omnivorous: mainly invertebrates: worms, molluscs, crustaceans, and insects; also seeds
Bird	Diamond Firetail	Terrestrial	Primary consumer	Herbivore	Herbivore (seeds of grasses)
Bird	Double-banded Plover	Aquatic	Tertiary consumer	Invertivore/ omnivore	Omnivorous: mainly invertebrates: molluscs, insects, crustaceans and spiders; sometimes seeds and fruits.
Bird	Dusky Moorhen	Aquatic	Secondary consumer	Omnivore	Omnivorous: vegetable matter, seeds, fruits, molluscs, insects, spiders, carrion and faeces
Bird	Eastern Curlew, Far Eastern Curlew	Aquatic	Tertiary consumer	Carnivore	Molluscs, crustaceans, insects
Bird	Eastern Great Egret	Aquatic	Tertiary consumer	Carnivore	Primarily fish, also frogs, insects and small birds
Bird	Elegant Parrot	Terrestrial	Secondary consumer	Omnivore	Seeds, vegetable matter, monocotyledons, Dicotyledons, insects (occasionally).
Bird	Eurasian Coot	Aquatic	Secondary consumer	Omnivore	Omnivorous: aquatic vegetation, seeds, grass, occasionally aquatic insects, molluscs, crustaceans and eggs
Bird	Fairy Prion (southern)	Aquatic	Tertiary consumer	Carnivore	Carnivorous: mainly euphausiids and other small crustaceans with small amounts of fish and pteropods
Bird	Fairy Tern	Aquatic	Tertiary consumer	Carnivore	Carnivorous: fish
Bird	Flesh-footed Shearwater, Fleshy-footed Shearwater	Aquatic	Tertiary consumer	Poorly known - carnivore	Poorly known - fish and cephalopods recorded.
Bird	Fork-tailed Swift	Aquatic	Secondary consumer	Invertivore	Insectivorous, taking a wide variety of insects and spiders
Bird	Gang-gang Cockatoo	Terrestrial	Primary consumer	Herbivore	Herbivore (seeds of grasses)
Bird	Gould's Petrel, Australian Gould's Petrel	Aquatic	Tertiary consumer	Poorly known - carnivore	Poorly known - one bird contained small fish and numerous cephalopod beaks.

Table C2 - Mammal and Bird Screening

General Information		Trophic Level and Guild			
Class	**Species**	**Environment**	**Trophic Level**	**Guild**	**Food intake rationale**
Bird	Great Knot	Aquatic	Tertiary consumer	Invertivore	Carnivorous (11% worms, 70% molluscs, 11.5% crustaceans, 6.5% starfish)
Bird	Greater Sand Plover, Large Sand Plover	Aquatic	Tertiary consumer	Invertivore	Molluscs, worms, crustaceans, insects and, occasionally, lizards; once recorded eating plant material.
Bird	Grey Falcon	Terrestrial	Quaternary consumer	Carnivore	Mostly birds, particularly graminivorous parrots and pigeons, with some records of small mammals, insects and reptiles.
Bird	Grey Goshawk	Terrestrial	Quaternary consumer	Carnivore	Mostly mammals, such as rabbits, possums and bats; also birds and their nestlings, snakes, lizards, frogs, insects and occasionally carrion.
Bird	Grey Plover	Aquatic	Tertiary consumer	Invertivore	Invertivorous: molluscs, insects, crustaceans, polychaete worms, and occasionally vegetation and seeds
Bird	Grey-tailed Tattler	Aquatic	Tertiary consumer	Invertivore	Carnivorous, mainly invertebrates: Polychaetes, molluscs, crustaceans, insects, occasionally fish
Bird	Indian Yellow-nosed Albatross	Aquatic	Quaternary consumer	Carnivore	No detailed studies - Mostly fish with some cephalopods
Bird	Latham's Snipe, Japanese Snipe	Terrestrial	Tertiary consumer	Omnivore	Plants (43.7%), Animals (56.3%) - earthworms , spiders, insets, some contained molluscs, isopods and centipedes)
Bird	Lesser Sand Plover	Aquatic	Secondary consumer	Invertivore	Invertivorous: molluscs, worms, crustaceans and insects.
Bird	Lewin's Rail	Aquatic	Tertiary consumer	Invertivore	Invertivore: molluscs, earthworms, arthropods, especially insects and crustaceans, occasionally frogs and eggs
Bird	Little Black Cormorant	Aquatic	Tertiary consumer	Carnivore	Carnivore (73.6-100% fish, 3.9-24.8% crustaceans)
Bird	Little Curlew, Little Whimbrel	Terrestrial	Tertiary consumer	Omnivore	Mostly insects and spiders but also seeds and berries.
Bird	Little Eagle	Terrestrial	Quaternary consumer	Carnivore	Mostly rabbits, rodents, birds, carrion, reptiles and sometimes insects.
Bird	Little Egret	Aquatic	Tertiary consumer	Carnivore	Primarily fish, also frogs and insects
Bird	Little Pied Cormorant	Aquatic	Tertiary consumer	Carnivore	Carnivore (38-55% fish, 45-61% crustaceans)
Bird	Little Tern	Aquatic	Tertiary consumer	Carnivore	Carnivorous: mainly small fish, occasionally crustaceans, insects, annelids and molluscs
Bird	Long-toed Stint	Aquatic	Tertiary consumer	Invertivore/ omnivore	Poorly known, omnivorous: seeds, molluscs, crustaceans and insects.
Bird	Marsh Sandpiper, Little Greenshank	Aquatic	Tertiary consumer	Carnivore	Mostly insects and molluscs. Plant material has been found in stomachs but is likely to be ingested incidentally.
Bird	Masked Lapwing	Aquatic	Tertiary consumer	Invertivore/ omnivore	Omnivorous, mainly invertebrates: molluscs, worms, millepedes, centipedes, insects, crustaceans, occasionally seeds
Bird	Musk Duck	Aquatic	Tertiary consumer	Invertivore/ omnivore	Aquatic invertivorous omnivore (43.5% insects, 27.4% plants, 16.2% molluscs, 10.8% crustaceans,3% fish, 3% frogs, <1% other)
Bird	Northern Buller's Albatross, Pacific Albatross	Aquatic	Quaternary consumer	Carnivore	Carnivore: Mostly squid with some fish, krill and tunicates
Bird	Northern Giant Petrel	Aquatic	Quaternary consumer	Carnivore	Carnivore (53-64% birds, 14-32% crustaceans, 2-5% fish, 3% cephalopods, 18% mammals)
Bird	Northern Royal Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods with some fish, crustaceans and salps.
Bird	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit	Aquatic	Tertiary consumer	Carnivore	Mainly carnivorous: worms, molluscs, crustaceans, insects and some plant material; also extralimitally, fruits, fish and tadpoles
Bird	Orange-bellied Parrot	Terrestrial	Primary consumer	Herbivore	Herbivore (seeds of grasses)
Bird	Osprey	Aquatic	Quaternary consumer	Carnivore	Carnivore: Mostly fish although small terrestrial vertebrates, seabirds and crustacea also recorded
Bird	Pacific Black Duck	Aquatic	Secondary consumer	Omnivore	Omnivorous: mainly plants, occasionally aquatic insects and crustaceans
Bird	Pacific Golden Plover	Aquatic	Secondary consumer	Invertivore	Invertivore: molluscs, worms, insects, crustaceans, spiders.
Bird	Pectoral Sandpiper	Aquatic	Tertiary consumer	Omnivore	Omnivorous: algae, seeds, crustaceans, arachnids and insects
Bird	Pin-tailed Snipe	Aquatic	Tertiary consumer	Invertivore	Invertivorous: molluscs, insects and earthworms, occasionally crustaceans, seeds and vegetation
Bird	Plains-wanderer	Terrestrial	Secondary consumer	Omnivore	Seeds, leaves, insects, spiders.
Bird	Plumed Egret	Aquatic	Tertiary consumer	Carnivore	Primarily fish but also frogs, with lizards and grasshoppers main food in drier habitats
Bird	Red Knot, Knot	Terrestrial	Tertiary consumer	Omnivore	Worms, bivalves, gastropods, crustaceans and echinoderms. Extralimitally, also take shoots, bulbs, seeds and roots, especially early in breeding season; hydrozoans, arachnids, insects, fish and kitchen scraps.
Bird	Red-necked Stint	Aquatic	Tertiary consumer	Omnivore	Omnivorous (50% plants, 30-40% crustaceans, 20-40% insects)
Bird	Regent Honeyeater	Terrestrial	Secondary consumer	Omnivore	Omnivore primarily plants and lesser invertebrates
Bird	Royal Spoonbill	Aquatic	Tertiary consumer	Carnivore	Carnivore (42% fish, 33% insects, 25% crustaceans)

Table C2 - Mammal and Bird Screening

General Information		Trophic Level and Guild			
Class	**Species**	**Environment**	**Trophic Level**	**Guild**	**Food intake rationale**
Bird	Ruddy Turnstone	Aquatic	Tertiary consumer	Invertivore	Carnivorous: insects, worms, crustaceans, molluscs, spiders; occassionally eggs and carrion
Bird	Ruff	Aquatic	Tertiary consumer	Invertivore/ omnivore	Invertivorous/omnivorous
Bird	Salvin's Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods and fish, particularly mackerel and redbait
Bird	Sharp-tailed Sandpiper	Aquatic	Secondary consumer	Omnivore	Omnivorous: seeds, worms, molluscs, crustaceans and insects
Bird	Shy Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods and fish, particularly mackerel and redbait
Bird	Sooty Albatross	Aquatic	Quaternary consumer	Carnivore	Carnivore Mostly cephalopods but fish, crustaceans, siphonophores and carrion including dead birds recorded
Bird	Sooty Shearwater	Aquatic	Tertiary consumer	Carnivore	Carnivore (89% fish, 5.3% cephalopods, 4.8% crustaceans)
Bird	South-eastern Hooded Robin, Hooded Robin (south-eastern)	Terrestrial	Secondary consumer	Invertivore	Arthropods, mainly insects; occasionally seeds
Bird	Southern Giant-Petrel, Southern Giant Petrel	Aquatic	Quaternary consumer	Carnivore	Carnivore (71-93% birds, 11-22% crustaceans, 1-4% fish, 2-12% cephalopods, 3-% mammals)
Bird	Southern Royal Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods with some fish, crustaceans and salps, diet varying with locality.
Bird	Southern Whiteface	Terrestrial	Secondary consumer	Invertivore	Mainly insects, but also seeds and leaves
Bird	Swift Parrot	Terrestrial	Primary consumer	Herbivore	Herbivore
Bird	Swinhoe's Snipe	Aquatic	Tertiary consumer	Invertivore	Invertivorous: earthworms, molluscs and insects (including beetles), occasionally vegetation
Bird	Terek Sandpiper	Aquatic	Tertiary consumer	Invertivore	Invertivorous: crustaceans and insects
Bird	Wandering Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods, many probably scavenged, also fish, rarely crustaceans.
Bird	Whimbrel	Aquatic	Tertiary consumer	Invertivore	Invertivorous: taking annelids, crustaceans, and, rarely, fish and birds
Bird	White-bellied Sea-Eagle	Aquatic	Quaternary consumer	Carnivore	Opportunistic carnivores: birds, reptiles, fish, mammals crustaceans and carrion
Bird	White-capped Albatross	Aquatic	Quaternary consumer	Carnivore	Mostly cephalopods and fish, particularly mackerel and redbait
Bird	White-faced Heron	Aquatic	Tertiary consumer	Carnivore	Carnivore (32-74% crustaceans, 13-87% fish, 12-36% insects, 0-27% worms)
Bird	White-throated Needletail	Terrestrial	Secondary consumer	Invertivore	Insectivorous, taking a wide variety of insects and spiders
Bird	Wood Sandpiper	Aquatic	Tertiary consumer	Invertivore	Invertivorous: insects and molluscs.
Bird	Yellow Wagtail	Aquatic	Secondary consumer	Invertivore	Invertivorous: terrestrial and aquatic invertebrates, mainly insects and their larvae.
Mammal	Australian Fur-seal, Australo-African Fur-seal	Aquatic	Tertiary consumer	Carnivore	Carnivore: fish and large pelagic invertebrates (octopus, squid)
Mammal	Black Rat	Terrestrial	Tertiary consumer	Omnivore	Omnivore: adapted to human environment and eats "just about anything".
Mammal	Brown Rat	Terrestrial	Tertiary consumer	Omnivore	Omnivore: adapted to human environment and eats "just about anything".
Mammal	Common Dolphin, Short-beaked Common Dolphin	Aquatic	Tertiary consumer	Carnivore	Carnivore: fish and cephalopods
Mammal	Dingo	Terrstrial	Tertiary consumer	Carnivore	Carnivore: primarily mammals (especially rabbits, kangaroos, wallabies and wombats) will eat reptiles, insects and birds.
Mammal	Dusky Dolphin	Aquatic	Quaternary consumer	Carnivore	Feeds on fish and squid, preying on primary and secondary consumers in marine ecosystems. Forages in open ocean waters.
Mammal	European Rabbit	Terrestrial	Primary consumer	Herbivore	Strict herbivore, consuming grasses, leaves, and roots. Forages on land in grasslands and forests.
Mammal	Grey-headed Flying-fox	Terrestrial	Primary consumer	Herbivore	Frugivorous, feeding on fruits, nectar, and pollen. Forages in terrestrial environments, primarily forests and urban areas.
Mammal	House Mouse	Terrestrial	Secondary consumer	Omnivore	Omnivorous, likley only vegetation on site.
Mammal	Humpback Whale	Aquatic	Secondary–Tertiary consumer	Carnivore	Filter-feeds on krill, plankton, and small fish. Primarily secondary when eating zooplankton, tertiary when consuming fish. Forages in marine environments.
Mammal	Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin	Aquatic	Tertiary consumer	Carnivore	Carnivore: fish and cephalopods
Mammal	Long-nosed Fur-seal, New Zealand Fur-seal	Aquatic	Tertiary consumer	Carnivore	Carnivore: fish, cephalopods and marine birds (penguins)
Mammal	Pygmy Right Whale	Aquatic	Secondary–Tertiary consumer	Carnivore	Filter-feeds on zooplankton and small fish, acting as a secondary consumer (zooplankton) or tertiary consumer (fish). Forages in marine environments.
Mammal	Red Fox	Terrestrial	Tertiary consumer	Omnivore	Ominore primarily carnivore eating rabbits as well as insects, reptiles, birds and vegetative matter
Mammal	Southern Right Whale	Aquatic	Secondary–Tertiary consumer	Carnivore	Filter-feeds on zooplankton, copepods, and krill, primarily as a secondary consumer, potentially tertiary if consuming small fish. Forages in marine environments.
Mammal	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	Terrestrial	Quaternary consumer	Carnivore	Carnivore: generalist predator (gliders, possums, small wallabies, rats, birds, bandicoots, rabbits, reptiles and insects.

Appendix D Exposure estimation and risk characterisation

Appendix D - Dose Estimation

Exposure Point Concentrations

	Abiotic Media		Aquatic Biota				
	Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish
Area of Interest	*mg/kg*	*µg/L*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
Port Phillip Bay Foreshore	0.018	0	0.0026	0.0821	0	0	0
Port Phillip Bay Inshore	0.016	0.057	0.01	0.012	0.023	0.26	0.086
RAAF Lake (Sping/Summer 2020)	4.2	41.2	0	0	0	0	0

Biotic Media Intake

		Nagy (2001) Fresh Matter Intake				Aquatic Biota				
Receptors	Bodyweight	Category	a	b	FMI	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish
	g	-	-	-	g(FM)/day	%	%	%	%	%
Birds										
Black Swan	3700	All birds	2.065	0.689	590	100%	0%	0%	0%	0%
Australasian Shoveler	540	All birds	2.065	0.689	160	24%	38%	38%	0%	0%
Little Egret	325	Carnivorous	3.05	0.67	150	0%	10%	10%	40%	40%
Caspian Tern	610	Marine birds	3.221	0.658	220	0%	3%	3%	48%	48%
Osprey	1000	Marine birds	3.221	0.658	300	0%	3%	0%	77%	20%
Double-banded Plover	60	Carnivorous	3.05	0.67	47	20%	40%	40%	0%	0%
Little Tern	40	Carnivorous	3.05	0.67	36	0%	20%	20%	0%	60%

Abiotic Media Intake

		Nagy (2001) Dry Matter Intake				Sediment Intake		US EPA (1993) Surface Water Intake			
Receptors	Bodyweight	Category	a	b	DMI	Proportion DMI (sed)	Sediment Intake	Category	a	b	SW Intake
	g		-	-	g(DM)/day	-	g(sed)/day				L/day
Birds											
Black Swan	3700	All birds	0.638	0.685	180	0.082	15	Bird	0.059	0.67	0.14
Australasian Shoveler	540	All birds	0.638	0.685	47	0.02	0.94	Bird	0.059	0.67	0.039
Little Egret	325	Carnivorous	0.849	0.663	39	0.02	0.78	Bird	0.059	0.67	0.028
Caspian Tern	610	Marine birds	0.88	0.658	60	0.02	1.2	Bird	0.059	0.67	0.042
Osprey	1000	Marine birds	0.88	0.658	83	0.02	1.7	Bird	0.059	0.67	0.059
Double-banded Plover	60	Carnivorous	0.849	0.663	13	0.3	3.9	Bird	0.059	0.67	0.009
Little Tern	40	Carnivorous	0.849	0.663	9.8	0.02	0.2	Bird	0.059	0.67	0.0068

Appendix D - Dose Estimation

Dose Estimation

Port Phillip Bay Foreshore

		Abiotic Media		Aquatic Biota					Total
		Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish	Sum
Receptors	**Area Use Factor**	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day
Birds									
Black Swan	0.1	0.0E+00	0.0E+00	4.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.1E-05
Australasian Shoveler	0.05	1.6E-06	0.0E+00	9.0E-06	4.6E-04	0.0E+00	0.0E+00	0.0E+00	4.7E-04
Little Egret	0.25	1.1E-05	0.0E+00	0.0E+00	9.5E-04	0.0E+00	0.0E+00	0.0E+00	9.6E-04
Caspian Tern	0.25	8.8E-06	0.0E+00	0.0E+00	1.9E-04	0.0E+00	0.0E+00	0.0E+00	1.9E-04
Osprey	0.1	3.1E-06	0.0E+00	0.0E+00	7.4E-05	0.0E+00	0.0E+00	0.0E+00	7.7E-05
Double-banded Plover	0.125	1.5E-04	0.0E+00	5.1E-05	3.3E-03	0.0E+00	0.0E+00	0.0E+00	3.5E-03
Little Tern	0.25	2.3E-05	0.0E+00	0.0E+00	3.8E-03	0.0E+00	0.0E+00	0.0E+00	3.8E-03

Port Phillip Bay Inshore

		Abiotic Media		Aquatic Biota					
		Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish	Sum
Receptors	**Area Use Factor**	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day
Birds									
Black Swan	0.9	5.9E-05	1.9E-06	1.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E-03
Australasian Shoveler	0.45	1.3E-05	2.7E-07	3.2E-04	6.3E-04	1.2E-03	0.0E+00	0.0E+00	2.1E-03
Little Egret	0.25	9.5E-06	1.1E-07	0.0E+00	1.4E-04	2.8E-04	1.2E-02	4.0E-03	1.6E-02
Caspian Tern	0.25	7.8E-06	1.6E-07	0.0E+00	2.8E-05	5.3E-05	1.1E-02	3.8E-03	1.5E-02
Osprey	0.1	2.7E-06	9.1E-08	0.0E+00	1.1E-05	0.0E+00	6.0E-03	5.2E-04	6.5E-03
Double-banded Plover	0.125	1.3E-04	1.7E-08	2.0E-04	4.8E-04	9.0E-04	0.0E+00	0.0E+00	1.7E-03
Little Tern	0.25	2.0E-05	2.6E-08	0.0E+00	5.5E-04	1.0E-03	0.0E+00	1.2E-02	1.3E-02

RAAF Lake (Sping/Summer 2020)

		Abiotic Media		Aquatic Biota					
		Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish	Sum
Receptors	**Area Use Factor**	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day	mg(dose)/kg(bw)/day
Birds									
Black Swan	0.5	8.5E-03	7.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.3E-03
Australasian Shoveler	0.25	1.8E-03	1.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.9E-03
Little Egret	0.01	1.0E-04	3.1E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-04
Caspian Tern	0.01	8.3E-05	4.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.8E-05
Osprey	0.01	7.1E-05	6.6E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.8E-05
Double-banded Plover	0.125	3.4E-02	1.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.4E-02
Little Tern	0.01	2.1E-04	7.6E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.1E-04

Appendix D - Risk Characterisation

Port Phillip Bay

Receptors	Background Dose	TRV	Dose	Hazard	Hazard Index from Pathway						
					Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish
	%	*mg/kg(bw)/day*	*mg/kg(bw)/day*	-	%	%	%	%	%	%	%
Birds											
Black Swan	0%	0.00772	0.001541	2.0E-01	4%	0%	96%	0%	0%	0%	0%
Australasian Shoveler	0%	0.00772	0.00257	3.3E-01	1%	0%	13%	42%	45%	0%	0%
Little Egret	0%	0.00772	0.01696	2.2E+00	0%	0%	0%	6%	2%	69%	23%
Caspian Tern	0%	0.00772	0.01519	2.0E+00	0%	0%	0%	1%	0%	74%	25%
Osprey	0%	0.00772	0.006577	8.5E-01	0%	0%	0%	1%	0%	91%	8%
Double-banded Plover	0%	0.00772	0.0052	6.7E-01	5%	0%	5%	72%	17%	0%	0%
Little Tern	0%	0.00772	0.0168	2.2E+00	0%	0%	0%	25%	6%	0%	68%

Appendix D - Risk Characterisation

RAAF Lake

Receptors	Background Dose	TDI	Dose	Hazard	Hazard Index from Pathway						
					Sediment	Surface Water	Aquatic Plants	Benthic Invertebrates	Pelagic Invertebrates	Predator Fish	Prey Fish
	%	*mg/kg(bw)/day*	*mg/kg(bw)/day*	-	%	%	%	%	%	%	%
Birds											
Black Swan	0%	0.00772	0.0093	1.2E+00	92%	8%	0%	0%	0%	0%	0%
Australasian Shoveler	0%	0.00772	0.0019	2.5E-01	94%	6%	0%	0%	0%	0%	0%
Little Egret	0%	0.00772	0.0001	1.3E-02	97%	3%	0%	0%	0%	0%	0%
Caspian Tern	0%	0.00772	0.000088	1.1E-02	95%	5%	0%	0%	0%	0%	0%
Osprey	0%	0.00772	0.000078	1.0E-02	92%	8%	0%	0%	0%	0%	0%
Double-banded Plover	0%	0.00772	0.034	4.4E+00	100%	0%	0%	0%	0%	0%	0%
Little Tern	0%	0.00772	0.00021	2.7E-02	100%	0%	0%	0%	0%	0%	0%

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