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Ongoing Monitoring Report (July 2024 - June 2025)

PFAS OMP - Singleton Military Area

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PFAS OMP - Singleton Military Area

Client: Department of Defence

ABN: 68706814312

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
ALG	Alternate Landing Ground
BoM	Bureau of Meteorology
CSM	Conceptual Site Model
Defence	Department of Defence
DNSDC	Defence National Storage and Distribution Centre
DoH	Department of Health
DSI	Detailed Site Investigation
EPBC	Environmental Protection and Biodiversity Conservation
EPC	Exposure Point Concentration
FSANZ	Food Standards Australia New Zealand
GW	Groundwater
GWE	Groundwater Elevation
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
HLG	Helicopter Landing Ground
LOR	Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation-Reduction Potential
PFAS	Per- and Poly-Fluoroalkyl Substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control

Acronym	Term
SAQP	Sample and Analysis Quality Plan
STA	Singleton Training Area
STP	Sewage Treatment Plant
SW	Surface Water
SWL	Standing Water Level
TDI	Tolerable Daily Intake
TOC	Top of Casing

List of Units

Units	Term
˚C	Degrees Celsius
µg/L	Micrograms per litre
µS/cm	MicroSiemens per centimetre
g	Gram
km	Kilometre
L	Litre
m	Metre
mAHD	Metres relative to Australian Height Datum
mbgs	Metres below ground surface
mbTOC	Metres below top of casing
mg/kg	Milligrams per kilogram
mg/L	Milligrams per litre
mm	Millimetre
mV	Millivolt

Executive Summary

Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the Ongoing Monitoring Plan (OMP) for monitoring of per- and poly-fluoroalkyl substances (PFAS) at the Singleton Military Area (the 'base') in New South Wales (NSW).

Objective

The objective of implementing the OMP is to provide information on changes in location and concentrations of PFAS within the environment. The data is required to assist risk management decisions by Defence and NSW State Government agencies to protect human health and the environment.

Monitoring Scope

AECOM completed two monitoring events of groundwater, surface water and sediment between July 2024 and June 2025 (the 'monitoring period') in accordance with the sampling and analysis quality plan (SAQP) (AECOM, 2024). This monitoring targeted PFAS associated with the fire-fighting foams used at the base historically.

Monitoring Results

Groundwater

As specified in the OMP (Defence, 2025), groundwater sampling during this monitoring period was undertaken at, and north of, the base.

Concentrations of PFAS were either within the historical range, or within the same order of magnitude of historical results in on and off-base locations during the monitoring period. This suggests that there have been no significant changes to the nature, magnitude or extent of PFAS in groundwater since the Detailed Site Investigation (DSI) was completed in 2019.

A first-time detection of PFAS and an exceedance of the adopted human health screening criteria was reported at off-base shallow monitoring well MW188S, located between the northern base boundary and the Singleton Sewage Treatment Plant (STP). As the concentrations of PFAS in the shallow groundwater zone remain below the laboratory limit of reporting along the northern boundary of the base, the changes in PFAS concentrations in off-base wells are unlikely to be attributed to the off-base migration of PFAS in groundwater.

Given the proximity of monitoring well MW188S to the unnamed ephemeral drainage channel leaving the base at surface water sampling location SW115, it is possible that the first-time detection of PFAS at this groundwater location is associated with infiltration of PFAS impacted surface water leaving the base via this drainage channel.

Based on the data collected during the current monitoring period, the potential risk to off-base users of groundwater remains unchanged.

Surface Water

Surface water samples were collected on-base and off-base during the monitoring period. PFAS concentrations in surface water were either within the historical range, or within the same order of magnitude as historical results in the samples analysed.

The highest concentrations were reported in the northern portion of the base. SW002, located immediately downstream of the Defence National Storage and Distribution Centre (DNSDC), a known on-base PFAS source area and further downstream at the base boundary (location SW115) reported similar concentrations and PFAS composition. The results were below the adopted human health screening criteria for recreational use.

Given the ephemeral nature of the drainage channel, only limited historical sampling data is available for base boundary location SW115. This suggests that while there is no apparent base flow (groundwater discharging to the channel) occurring at this location, there is the potential for PFAS to migrate off-base via this surface water pathway following rainfall.

Based on the data collected to date there were no discernible temporal trends in surface water concentrations.

Sediment

Sediment samples were collected on-base and off-base during the monitoring period, co-located with the surface water samples.

PFAS concentrations in sediments were either within the historical range, or within the same order of magnitude as historical results in the majority of sediment samples analysed during the monitoring period.

No significant temporal trends were identified in sediment samples collected during the monitoring period.

What is an 'order of magnitude'?

This refers to something decreasing or increasing by multiples of ten. For instance, an increase from 10 to 100 is an order of magnitude increase. When assessing changes in PFAS concentrations at an individual location, all concentrations are considered when determining trends, but order of magnitude changes are discussed separately as they represent a significant change in concentrations from what was reported in the previous event.

If a change is close to established health or environmental criteria, it will also be considered significant.

Conceptual Site Model and Risk Summary

The CSM is used to describe the ways that PFAS moves from known source areas into the surrounding environment. Specifically, the CSM describes the links between PFAS sources, transport pathways, and possible exposure scenarios. The CSM was developed during the investigation stages and the most recent CSM is summarised in the PFAS Management Area Plan (PMAP) (Defence, 2021b).

The risk profile was established by the human health and ecological risk assessments and is summarised in the PMAP (Defence, 2021b).

While there have been localised changes in PFAS concentrations in groundwater, surface water and sediment during the monitoring period, the CSM and the associated risk profile remain unchanged.

1.0 Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) for the Singleton Military Area (the 'base') in New South Wales (NSW). The location of the base and surrounding areas are shown in **Figure F1** in **Appendix A**.

In order to meet the objectives of the OMP, the monitoring targeted PFAS in groundwater, surface water and sediment at selected locations on-base and off-base areas in accordance with the *Sampling and Analysis Quality Plan* (SAQP) (AECOM, 2024).

This Ongoing Monitoring Report (OMR) has been prepared in accordance with the *Ongoing Monitoring Program Reporting - Guidance* (Defence, 2024) based on monitoring data collected between July 2024 and June 2025 (the 'monitoring period').

1.1 Objective

The objective of the monitoring program is to identify and evaluate:

- spatial and temporal (including seasonal) variability of PFAS in the environment
- changes to sources, transport pathways and/or receptors, described as a Conceptual Site Model (CSM) for the base
- whether risks to human and ecological receptors require review
- the influence that risk management activities at the base, as outlined in the PFAS Management Area Plan (PMAP) (Defence, 2021b) have had on PFAS in the environment
- whether the identified changes trigger an action and/or review.

The data collected may be used to inform where new risk management actions may be required, or to support a determination that remediation has been completed so far as reasonably practicable.

1.2 Scope

The scope of works for this OMR included assessing changes to the distribution of PFAS over the monitoring period and if these changes have implications for the understanding of the CSM and the associated risk profile. This included the evaluation of data reported in the following sampling event reports which are included in **Appendix F**:

- *Sampling Event Report, July 2024. PFAS OMP – Singleton Military Area (Site ID 0356).* 25 March 2025 (AECOM, 2025a).
- *Sampling Event Report, February 2025. PFAS OMP – Singleton Military Area.* 17 April 2025 (AECOM, 2025b).

The OMR also considers historical OMP data and PFAS data collected outside the OMP. During this monitoring period this included additional ad hoc sampling completed at two private properties located between the north eastern base boundary and the Hunter River (AECOM, 2025c and AECOM, 2025d).

2.0 Site Setting

2.1 Site Description

The site identification and setting for the base are summarised in **Table 1** below.

Table 1 Site identification and setting summary

Element	Description
Site ID	0356
Location	The base is located approximately 8 km South of the township of Singleton, in the Hunter Region of NSW, as shown on **Figure F1** in **Appendix A**.
Regional Meteorology	The climate at the base and surrounds is characterised as temperate, with cool winters and warm summers. Winter months (May – October) are typically drier than summer months (November – April). The Bureau of Meteorology (BoM) at Singleton Military Defence Area (station number: 061430) has recorded the climate statistics on-base since 2017, presenting a record of approximately 8 years. The following is a historical summary of temperature and rainfall data from this station: • Mean monthly maximum temperatures have varied from 16.7°C in July 2022 to 36.1°C in January 2019. • Annual rainfall ranges between 344 mm and 1026 mm per annum. • Mean monthly rainfall is highest between October and March, averaging 79.85 mm per month, and lowest from April to September averaging 28.47 mm per month. • The annual rainfall between July 2024 and April 2025 was 476.3 mm, which was consistent with the previous monitoring period. Further details retaining rainfall and significant weather events recorded during the monitoring period are presented in **Section 2.2**.
Topography and Hydrology	The base is dominated by moderate to gently sloping inclines and hills, with the foothills of the Broken Back Ranges rising steeply at the southern extent of the base. The base and its surrounds are located in the central lowlands along the Hunter River and characterised by undulating to rolling hills and inclines on weak sedimentary rocks. The base comprises several drainage lines that ultimately drain North and East towards the Hunter River (located approximately 2 kilometres North of the base boundary). The primary on-base drainage lines include: • Mudies Creek and Emigrant Creek along the western and eastern boundaries of the Dochra Airfield. • a number of creeks emanating from the southern area of the base. Note that based on non-detection of PFAS and lack of identified source areas, these waterways were not considered further during the Detailed Site Investigation (DSI) (AECOM, 2019). • Doughboy Hollow Creek, which traverses the base and runs to the North. The off-base areas comprise a number of water bodies including private dams and smaller drainage lines located on residential properties. The Sewage Treatment Plant (STP) owned and operated by Singleton Council to the north of the base receives wastewater from both the base and wider Singleton township. The wetland east of the STP is understood to have hydraulic connectivity with groundwater present within the Hunter River alluvial floodplain at Whittingham. Therefore, surface water that migrates from

Element	Description
	Doughboy Hollow Creek to the wetland area east of the STP (including discharges from the STP) may provide recharge of groundwater present in the Hunter River alluvial floodplain. The previous investigations indicated that the major surface water bodies are ephemeral, and flow in response to rainfall, with no base flow component connected to the groundwater. Additionally, there is potential for surface water to recharge groundwater in the area. The DSI (AECOM, 2019) divided the catchments of the Cantonment into three sub-catchments (as presented on **Figure F3** in **Appendix A**) as follows: • **Sub-Catchment A**: Northern portion of the Cantonment. The primary drainage line is an unnamed tributary of Doughboy Hollow Creek which flows in a northerly direction and discharges off-base at the northern Cantonment boundary. In addition to runoff via the unnamed tributary of Doughboy Hollow Creek, surface water runoff from the Cantonment during heavy rainfall events may occur via overland flow. • **Sub-Catchment B**: Central portion of the Cantonment. The primary drainage line is an unnamed tributary of Doughboy Hollow Creek which flows in a north west direction and discharges off-base at the western Cantonment boundary down-gradient of the Helicopter Landing Ground (HLG). • **Sub-Catchment C**: Southern portion of the Cantonment. The primary drainage line is the main watercourse of Doughboy Hollow Creek which flows in a north west direction and discharges off-base at the western Cantonment boundary in the vicinity of the landfill and former flame thrower range.
Geology and Hydrogeology	The base and surrounding areas are located within the northern part of the Sydney Basin which is characterised by Permian and Triassic aged sedimentary rock. The lithology underlying the base is Narrabeen Group which is composed of sandstone with some conglomerate, claystone, and shale. Some less prominent rocks present in the area include quartzose sandstone of the Hawkesbury Sandstone, siltstone, and tuff. Coal measures are also extensive consisting of black coal interbedded with sandstone, shale mudstone, conglomerate with minor chert and tuff. The soils within the low-lying areas of the base consist primarily of alluvial soils, yellow and red podzolic soils. Towards the southern extent of the base where elevation is higher, the soil profiles are thinner and are classified as shallow soils. The hydrogeology of the base can be summarised into four notable sub-units: • The **perched groundwater unit** is an unconfined discontinuous perched zone within the sediments flanking creeks. Groundwater is present within the alluvium/colluvium flanking major water courses across the base. Recharge is mainly from rainfall and the zone periodically dries out following extended periods of low rainfall. • The **alluvial groundwater unit** presents groundwater in the low-lying part of the base, within the alluvial sediments of the Hunter River floodplain. It is an unconfined aquifer and recharges predominantly from surface water infiltration. This zone has suitable yield used for irrigation, agriculture, and farming. • In the weathered zone of the Permian bedrock lies the **shallow groundwater unit** where its presence is reliant on rainfall. The groundwater is perched above geological zones of low hydraulic conductivity such as clay or shale lenses within the bedrock. Groundwater quality within this unit is generally poor due to the leaching of salts from the

Element	Description
	Permian bedrock, which has been confirmed by the DSI (AECOM, 2019) and sampling under the OMP. • The **deep groundwater unit** forms the regional aquifer underlying the base. Rock porosity and the interconnection of void space highly dictates the flow of groundwater through this aquifer, followed by structural features in the rock. The previous investigations and monitoring have inferred groundwater flows in a northerly direction towards the Hunter River.
Flora and Fauna	The species or species habitat which are known to occur at the base and are listed as threatened species (under Environment Protection and Biodiversity Conservation [EPBC] Protected Matters Search Tool as reported in the OMP) are as follows: • Birds: the regent honeyeater and swift parrot are critically endangered. • Mammals: the spot-tailed quoll is endangered. • Plants: *Euphrasia arguta* (annual herb) and *Prasophyllum sp. Wybong* (terrestrial orchid) are critically endangered. • Reptiles: the broad-headed snake is vulnerable. The following fauna were observed at the base and within the immediate surrounds during DSI (AECOM, 2019): • Numerous birds, including small eagles, falcons, black cockatoos and tawny frogmouth owls, wedge-tailed eagle, Noisy miner, Australian raven, Australian wood duck, Yellow-tailed black cockatoo. • Kangaroos. • Wild horses. • Wild dogs, wild boars and foxes. • Tadpoles and frogs. • Goannas, lace monitors. • Frilled-neck lizard. • Red-bellied black snake. • Possum. • Small tortoise. • Turtle. • Crab legs.
Current and Previous Land Use (on-base)	The base is comprised of the Lone Pine Barracks (the Cantonment) and the Singleton Training Area (STA). The base includes barracks houses, the School of Infantry, Joint Logistics Unit East (Hunter Valley), the Australian Army Infantry Museum as well as Estate & Infrastructure Group SMA. Support activities undertaken primarily at the Cantonment include vehicle maintenance, storage and distribution of fuels and equipment wash-down. A fire station was operational at the Cantonment between 1963 and 1994, and associated activities included historical firefighting training with aqueous film forming foam (AFFF) (primarily 3M Lightwater) and equipment maintenance and testing. 3M Lightwater is no longer stored or used at the base. The STA comprises an approximately 15,000 hectare firing range, including a number of former and active ranges for weapons firing, vehicle training and explosives testing.
Land Uses Surrounding the base	The current land uses of the surrounding off-base areas are as follows:

Element	Description
	• Grazing land and the floodplain areas of Whittingham and Glenridding, as well as the STP are located to the north. The Whittingham Fire Station and Airstrip are located 1 kilometre and 1.3 kilometres north east, respectively. • The Pokolbin State Forest and the Broken Back Range are located to the south of the base. Hunter Valley vineyards are located further south east of the base. • A mix of rural and semirural land holdings including sparsely wooded open land and pastureland is to the east. The Hunter River lies to the north east, irrigating the croplands on the floodplains. • Grazing land and irrigated cropland within the floodplains of the Hunter River are located immediately west of the base.

2.2 Significant Weather Events

The rainfall activity recorded during the two sampling events completed within the monitoring period and the occurrence of wet weather events (days with rainfall > 15 mm) recorded during the monitoring period (July 2024 to June 2025) are provided in **Table 2**. A summary is provided below:

- Approximately 2mm of rainfall was recorded during the July 2024 monitoring event.
- No rainfall was recorded during the February 2025 sampling event.
- Overall, during the monitoring period, there were four wet weather events, with a maximum single day rainfall of 21.4 mm recorded on 12 January 2025.

The data is from the BoM monitoring station located at Singleton Military Defence Area (Station ID 061430).

Figure 1 below presents the data for the monitoring period against historical ranges on record since the weather station began operation in 2017.

Figure 1 Recorded rainfall (July 2024 to April 2025) against historic average

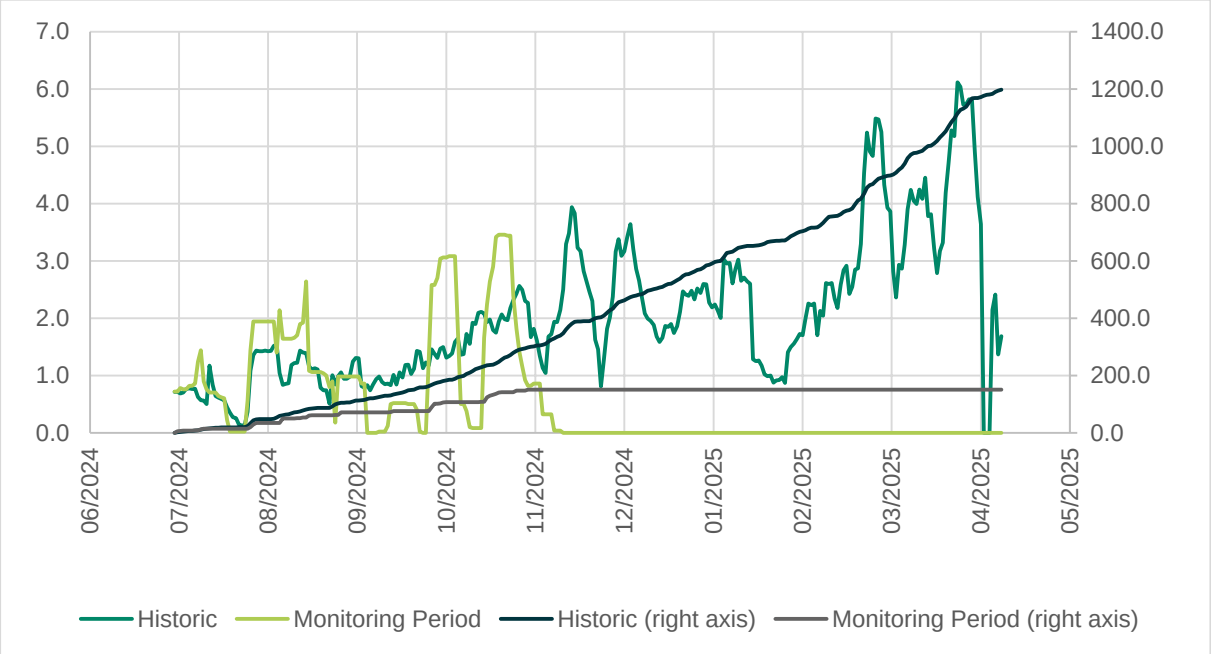


Table 2 Rainfall during monitoring period

Sampling Event and Date	Recorded rainfall (mm) (BoM, 2025) during sampling event	Wet weather events prior to the sampling event (days with rainfall >15 mm)
July 2024 (Biennial Sampling) (2 to 4 July 2024)	2 mm cumulative (with 1.4 mm on 2 July 2024) recorded at Singleton (Singleton Defence AWS, Station 061430)	1 wet weather event in 3 months prior to the sampling event, 22.2 mm on 6 May 2024.
February 2025 (Biannual Sampling) (17 - 19 February 2025)	0	4 wet weather events in 3 months prior to the sampling event, the most recent being 18.6 mm on 6 February 2025.

As noted in **Table 1** in **Section 2.1** the annual rainfall (of 476.3 mm) at the base was lower than average rainfall per annum (669 mm). The annual rainfall was consistent with the rainfall recorded during the previous monitoring period (446 mm). This rainfall data trend is presented by the cumulative rainfall lines on **Figure 1** above.

The monitoring events occurred outside rainfall events; the closest instance of a rainfall event of > 15mm and the sampling event was for the February 2025 biannual sampling event, with the rainfall occurring 11 days prior to sampling.

2.3 Monitoring Area

The monitoring is completed in two distinct areas:

- **On-base**: including on-base areas where the PFAS sources were identified as follows:
  - Lone Pine Barracks:
    - Former Cantonment Fire Station (FCFS) and surrounding area
    - Defence National Storage and Distribution Centre (DNSDC)
    - Alternate Landing Ground (ALG)
    - HLG
  - Singleton Training Area (STA)
    - Dochra Airfield
- **Off-base**: including private properties to the north, north west and north east of the base.

The on-base monitoring area is shown on **Figure F1** in **Appendix A**.

2.4 PFAS Source Areas

PFAS source areas can be primary or secondary. Primary sources are generally areas of PFAS contamination where AFFF was used or stored, for example a fire training area. Secondary sources are areas where PFAS accumulates and then continues to feed into the environment. PFAS can generally travel from a source to human or environmental receptors by surface water and groundwater. These are referred to as “migration pathways”.

The OMP (Defence, 2025a) provided a list of primary and secondary PFAS source areas as summarised below:

- On-base PFAS source areas:
  - FCFS and fire training pits (FTP) (PFAS in soil, surface water, groundwater and concrete).
  - DNSDC (PFAS in soil, groundwater, surface water and sediment).
  - ALG (PFAS in soil, surface water and sediment).
  - Dochra Airfield (PFAS in soil, groundwater, surface water and sediment).
  - HLG (PFAS in soil, groundwater, surface water and sediment).
- There is the potential that off-base activities and/or businesses may have used or generated wastes containing PFAS.

Defence completed a targeted investigation of surface soils at the FCFS in February 2024 in accordance with PMAP (Defence, 2021b). The purpose of the investigation was to evaluate whether the PFAS in surface soils are likely to be a significant contributor to PFAS concentrations identified in surface water at the northern base boundary.

The investigation comprised 29 samples collected from the former fire station footprint (demolished in 2022) and surrounding areas. The findings of this investigation indicated that the PFAS in surface soils at the FCFS present a low risk to human and/or ecological receptors and are unlikely to be a significant contributor to PFAS concentrations identified in surface water at the northern base boundary.

This targeted soil investigation was supplemented with a surface water mass flux assessment that comprised the installation of an autosampler and flow telemetry station at surface water location SW034, located along the northern base boundary, downstream of the FCFS. The purpose of the investigation was to quantify the mass flux of PFAS migrating from the base in surface water along the northern base boundary. The investigation confirmed that there was no base flow of surface water discharging via SW034, and the annualised estimate of PFAS being discharged during wet weather events was 33 g of PFOS+PFHxS and 35 g of sum of PFAS (or the equivalent of approximately two tablespoons per year).

Based on these lines of evidence, no further investigation at the FCFS was considered warranted and the PMAP actions were considered to have been addressed.

3.0 Sampling and Analytical Methodology

3.1 Sampling Methodology and Scope

The SAQP outlines the proposed schedule, rationale and methodology for sampling, prescribing that groundwater, surface water and sediment sampling across the on-base and off-base monitoring areas be undertaken on a biannual (six-monthly) basis with selected locations sampled either biannually, annually (once per year) or biennially (every second year) as per the requirements of the OMP (Defence, 2019a).

Note that in 2025, following the completion of the monitoring period, the OMP was updated. The updated OMP (Defence, 2025a), now prescribes that groundwater, surface water and sediment be sampled once per year (annual sampling). This revised sampling frequency will be implemented during subsequent monitoring events.

The SAQP provides the list of locations to be sampled during each sampling event, along with the sampling methodology for each of the media, and the Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs). The SAQP (AECOM, 2024) used during both the July 2024 and February 2025 sampling events has been included in **Appendix E**.

A summary of these two OMP sampling events completed during the monitoring period is provided in **Table 3**. Note that some locations could not be sampled due to impediments encountered during the sampling events, which are described in more detail in **Section 3.2**.

Table 3 Summary of monitoring events

Monitoring Event (Event type/ Sampling dates)	Locations to sample as per SAQP	Locations Sampled during Event	Analysis
July 2024	**On-base**		PFAS full suite
(Biennial event)	18 GW	16 GW	
(2 - 4 July 2024)	13 SW	12 SW	
	13 SD	12 SD	
	Off-base		
	12 GW	10 GW	
	7 SW	7 SW	
	7 SD	7 SD	
	1 OTH	1 OTH	
February 2025	**On-base**		PFAS full suite
(Biannual event)	4 GW	3 GW	
(17 - 19 February 2025)	13 SW	7 SW	
	13 SD	11 SD	
	Off-base		
	7 SW	7 SW	
	7 SD	7 SD	
	1 OTH	1 OTH	

Notes:
SW = surface water; GW = groundwater, SD = sediment, OTH = effluent
PFAS full suite is outlined in Appendix B of the SAQP (AECOM, 2024).

3.2 Deviations from SAQP and OMP

Deviations from the scope outlined in the SAQP (AECOM, 2024) for the monitoring period are summarised in **Table 4** below. Note that the deviations are as per those presented in the July 2024 (AECOM, 2025a) and February 2025 (AECOM, 2025b) sampling event reports (provided in **Appendix F**).

Table 4 Deviations from SAQP during the monitoring period

SAQP Requirement	Sampling Event Deviation	Impact of Deviation on Dataset
Biennial Sampling Event – July 2024		
30 groundwater locations are identified to be sampled as part of the biennial sampling event.	On-base groundwater monitoring well MW049 was in a fenced off area (for construction works) and unable to be accessed and therefore could not be sampled during the biennial sampling event.	The lack of sampling data for MW049 is not considered to have a significant impact on the dataset, or present a significant data gap, as another well (MW048) located in the DNSDC Compound targeting the same shallow aquifer was able to be sampled. Note that MW049 was not required to be sampled during the subsequent event in February 2025.
	On-base groundwater monitoring well MW104 was observed to be dry and therefore could not sampled during the biennial sampling event.	The lack of sampling data for MW104 is not considered to have a significant impact on the dataset, or present a significant data gap, as another well (MW110) located along the Northern Cantonment Boundary targeting the same shallow aquifer was able to be sampled.
	Off-base groundwater locations MW129 and MW132 (located north east of the base) were unable to be accessed (as access approval from private property owners were not received) and therefore could not be sampled during the biennial sampling event.	The lack of sampling data for MW129 and MW132 presents a potential data gap in monitoring the extent of PFAS in groundwater off-base to the north and north east of the base. Note that both MW129 and MW132 were not required to be sampled during the subsequent event in February 2025.
20 surface water and 20 sediment locations are identified to be sampled as part of the biennial sampling event.	On-base co-located surface water and sediment locations SW555/SD555 were in a fenced off area (for environmental regeneration works) and unable to be accessed and therefore could not be sampled during the biennial sampling event.	The lack of sampling data at SW555/SD555 presents a potential data gap in monitoring the extent of PFAS in surface water migrating off-base to the east of the base in sub-catchment B.
Biannual Sampling Event – February 2025		
4 groundwater locations are identified to be sampled as part of the biannual sampling event.	On-base groundwater monitoring well MW104 was observed to be dry and/or potentially blocked and therefore could not be sampled during the biannual sampling event.	The lack of sampling data for MW104 is not considered to have a significant impact on the dataset, or present a significant data gap, as MW110 located along the Northern Cantonment Boundary targeting the same shallow aquifer was able to be sampled. Given that MW104 has not been able to be sampled during all previous OMP

SAQP Requirement	Sampling Event Deviation	Impact of Deviation on Dataset
		sampling events, this location has been removed from the OMP.
20 surface water and 20 sediment locations are identified to be sampled as part of the biannual sampling event.	On-base surface water locations SW004, SW005, SW115, and SW116 were observed to be dry and therefore could not be sampled during the biannual sampling event.	The lack of sampling data at these locations are not considered to have a significant impact on the dataset, or present a significant data gap, given that it confirms that the source>receptor> pathway linkages for PFAS in surface water were incomplete at the time of sampling at specific locations. AECOM will attempt to sample these locations again during the next sampling event in July 2025 (to be reported under a separate cover).
	On-base co-located surface water and sediment locations SW114/SD114 were considered to be no longer representative of site conditions given the recent works on the base boundary, involving the installation of causeways which have led to a change in the landform. Therefore, the locations were not sampled during the biannual sampling event.	The lack of sampling data at SW114/SD114 is not considered to have a significant impact on the dataset or present a potential data gap given the location is upstream of key source areas and SW003 captures the flows in Sub-catchment A. Given the recent changes in the landform and that historically the location has often been dry, the co-located surface water and sediment sampling location (SW114/SD114) have been removed from the OMP.
	On-base co-located surface water and sediment locations SW555/SD555 were within a fenced area for regeneration works and therefore were not accessed for sampling during the biannual sampling event.	The lack of sampling data at SW555/SD555 presents a potential data gap in monitoring the extent of PFAS in surface water migrating off-base to the east of the base in sub-catchment B, as there are no other surface water and sediment locations targeting downstream of the unnamed tributary of Doughboy Hollow Creek in sub-catchment B. It is noted that PFAS concentrations at SW555 have historically been either below LOR or below adopted human health screening criteria (recreational water). The PFAS concentrations at SD555 have historically been consistent with concentration ranges reported at other sediment locations along the eastern boundary of the base. AECOM will attempt to access and sample these locations again during the next sampling event in July 2025 or identify alternative locations if deemed to be inaccessible in the long-term (to be reported under a separate cover).

In addition to the deviations provided in in **Table 4**, this OMR includes the following deviations (in **Table 5**) to human health criteria specified in OMP (Defence, 2025a).

Table 5 Deviations to Human Health Criteria

No.	Description	Rationale
1	Human Health Surface Water Screening Criteria	The OMP (Defence, 2025a) specifies that results from surface water locations be screened against the human health screening criteria for drinking water for PFOS+PFHxS and PFOA. Based on a review of the CSM and water use information presented in the PMAP (Defence, 2021b), the screening of surface water results against the HEPA (2025) drinking water criteria is not applicable given that the source>pathway>receptor is considered to be incomplete. Therefore, surface water results were only screened against recreational use human health screening criteria and ecological screening criteria.
2	Human Health Groundwater Screening Criteria	The OMP (Defence, 2025a) specifies that results from groundwater locations be screened against the human health screening criteria for recreational use of water for PFOS+PFHxS and PFOS. Based on a review of the CSM and water use information presented in the PMAP (Defence, 2021b), the screening of groundwater results against the HEPA (2025) recreational use criteria is not applicable given that the source> pathway>receptor is considered to be incomplete. Therefore, groundwater results were screened against drinking water human health screening criteria and ecological screening criteria only.
3	Drinking water criteria	The OMP (Defence, 2025a) specifies that the criteria in the OMP may be updated to consider any changes to the current human health and ecological screening criteria for PFAS as presented in the PFAS NEMP (2025). In June 2025, the NHMRC (2025) published revised drinking water criteria guidelines for PFOS (0.008 µg/L), PFHxS (0.03 µg/L), PFOA (0.2 µg/L) and PFBS (1 µg/L). Therefore, groundwater results were retrospectively screened against these new drinking water screening criteria, noting that the standard laboratory LOR for PFOS (0.02 µg/L) used historically for investigations and monitoring at the base and surrounding areas is higher than the revised drinking water screening criteria. These revised criteria have been presented in **Section 5.0**.

4.0 Quality Assurance and Quality Control

Data validation pertaining to the data in this report has been previously completed and discussed within the individual sampling event reports, listed in **Section 1.2** and provided in **Appendix F**.

Data validation procedures employed in the assessment of the field and laboratory Quality Assurance and Quality Control (QA/QC) data, completed as per the SAQP (AECOM, 2024), indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable (i.e. >95% of the data was suitable for use and DQIs passed acceptance criteria) for the purpose of the sampling event reports and this OMR.

All data collected during the monitoring period was reviewed and uploaded to the Defence ESdat database in accordance with the Defence Contamination Management Manual (DCMM) requirements.

5.0 Assessment Criteria

At the time of preparing this report, a number of guidance documents were available in Australia and referred to, including:

- Heads of EPA Australia and New Zealand (HEPA), 2025. PFAS National Environmental Management Plan (NEMP) Version 3.0. March 2025.
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017.
- National Health and Medical Research Council (NHMRC), 2019. Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water. August 2019.
- NHMRC update of health-based guideline values for PFAS in the Australian Drinking Water Guidelines. June 2025.

The adopted PFAS screening criteria to assess the data generated as part of the ongoing monitoring are presented in **Table 6** (human health criteria) and **Table 7** (ecological criteria). PFAS NEMP (HEPA, 2025) does not provide screening criteria for PFAS in sediments.

It is noted that for the purpose of presenting data within this report, AECOM has focused on perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulfonic acid (PFHxS) and perfluorobutane sulfonic acid (PFBS) i.e., those PFAS for which there is either human health and/or ecological screening criteria.

Additionally, the update to drinking water guidelines was released by NHMRC in June 2025 which was following the monitoring period for this OMR. As a result, the LOR for PFOS for samples collected during this monitoring period were above the updated screening criteria (as does all historical data for the base). Therefore, there is a level of uncertainty regarding the extent of PFAS in groundwater to concentrations below the updated NHMRC guidelines. This will be further addressed in future OMRs, when all groundwater samples will be analysed using low level LOR.

Table 6 Human health PFAS criteria

Pathway	Compound	Criteria	Comment/Reference
Water - Groundwater			
Drinking water quality	PFOS	0.008 µg/L	In June 2025, the NHMRC published revised drinking water criteria guidelines for PFOS, PFHxS, PFOA and PFBS. *All groundwater results were compared to these criteria.*
	PFHxS	0.03 µg/L	
	PFOA	0.2 µg/L	
	PFBS	1 µg/L	
Stock watering	PFOS	0.470 µg/L	The OMP (Defence, 2025) refers to exposure point concentrations derived by the Human Health and Ecological Risk Assessment (HHERA, AECOM, 2021) for a range of potential exposure scenarios. One common scenario was the surface water as a main stock drinking water source. These EPCs are considered suitable for application in the event where bore water is being used as the main stock drinking water source *Considered on a property-specific basis based on the known exposure pathways*
	PFHxS	0.280 µg/L	
	PFOA	0.050 µg/L	
Water – Surface Water			
Recreational water quality	PFOS + PFHxS	2 µg/L	The values are presented in the PFAS NEMP (HEPA, 2025) and are based on the NHMRC (2019) values. *All surface water results were compared to these criteria.*
	PFOA	10 µg/L	

Table 7 Ecological PFAS criteria

Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater and Surface Water			
Uptake (flora) and direct ingestion (fauna) of surface water and groundwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2025) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2023). The 99% species protection level has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results were compared to these criteria.*
	PFOA	19 µg/L	

6.0 Other Aspects

6.1 PFAS Projects

AECOM is not aware of any other PFAS related projects, including remediation that occurred at the base during the monitoring period.

6.2 Infrastructure and Development Projects

Ongoing ecological protection and revegetation works were being carried out along the eastern boundary of the base prevented access to co-located surface water and sediment locations SW555 and SD555 (which were within the fenced area of the exclusion zone).

Recent resurfacing and ground works along parts of the eastern base boundary have resulted in changes in ground elevations and potential changes to surface water flows from the base at the co-located surface water and sediment locations SW114 and SD114. As a result, locations SW114/SD114 have been removed from the OMP, as discussed in **Section 3.2**.

No other estate management works, training activities or construction works with potential to impact the program were observed during the sampling event.

AECOM has been notified of extensive future construction works off-base, including new road alignment and construction of a new bridge, which may potentially impact sampling locations in the vicinity of the Dochra airfield .

6.3 Water and Land Use Changes

AECOM is not aware of changes to water or land use as provided by land owners.

6.3.1 Updated Water Use Survey

Stakeholders at a rural property in Whittingham were contacted by AECOM in April 2025 following an increase in PFAS concentrations in groundwater reported at private property bore (MW056). An update to water use survey was carried out by the occupants of the property, the outcomes of which were assessed against the HHERA (AECOM, 2021), concluding that the risk profile for the typical scenario remains unchanged, as low and acceptable.

6.4 Ad Hoc Sampling

In April 2025, AECOM completed ad hoc sampling of two private properties located between the northeastern base boundary and the Hunter River to reassess the potential risks to users of groundwater for beneficial purposes.

The scope included the collection of samples from a groundwater bore used for stock watering, and co-located soil and vegetable (tomato, capsicum and pumpkin) samples from a garden watered using groundwater. The reported concentration of PFOS+PFHxS in the groundwater sample analysed was 0.01 µg/L. Concentrations of PFOS+PFHxS in the soil sample from the vegetable garden was 0.0013 mg/kg. Concentrations of PFOS+PFHxS in the vegetable samples analysed were below the laboratory limit of reporting.

Based on the concentrations of PFAS reported in the ad hoc samples analysed, and the exposure scenarios evaluated, the potential risks to users of groundwater at these properties remained low and acceptable.

Due to privacy considerations, the locations of the ad hoc samples collected are not shown in the Figures in **Appendix A**.

7.0 Monitoring Data Summary

7.1 Overall Summary

7.1.1 OMP Data

As part of the OMP, the following two scheduled monitoring events were completed by AECOM during the monitoring period:

- Biennial event: July 2024 (2 to 4 July 2024) (AECOM, 2025a)
- Biannual event: February 2025 (17 to 19 February 2025) (AECOM, 2025b).

The sample locations are shown on **Figure F2** to **Figure F4** (in **Appendix A**) and results from the monitoring period are summarised in the following sections for each matrix. The monitoring activities are detailed in the OMP Sampling Event Reports provided in **Appendix E**.

The locations and relevant data are generally discussed in reference to sources areas, sub-catchments and/or other areas of interest, as shown in **Table 8** below.

Table 8 Location groupings

Area (Screened Aquifer, for wells)	Location ID
Groundwater	
On-base - FCFS and FTP (Deep)	MW008, MW011, MW167
On-base – DNSDC (Shallow)	MW048, MW052
On-base - DNSDC (Deep)	MW049, MW050
On-base - HLG (Shallow)	MW059
On-base - Dochra Airfield (Shallow)	MW073
On-base - Dochra Airfield (Deep)	MW063, MW071
On-base - Northern Boundary (Shallow)	MW104*, MW110, MW115, MW118
On-base - Northern Boundary (Deep)	MW102, MW109, MW114
Off-base - Northern Boundary (Shallow)	MW126, MW128, MW188S
Off-base - Northern Boundary (Deep)	MW188D
Off-base - North and North East (Shallow)	MW056, MW121, MW124, MW129**, MW132**^, MW139^, MW187S
Off-base - North and North East (Deep)	MW187D
Surface water and wastewater	
On-base - Sub-Catchment A	SW002, SW003, SW026, SW032, SW034, SW114
On-base - Sub-Catchment B	SW028, SW555**
On-base - Sub-Catchment C	SW040
On-base - Boundary	SW115, SW116
On-base - Dochra Airfield	SW004, SW005
Off-base - North East & Singleton STP	SW039, SW064, SW065, SW553, SW563, OTH006
Off-base - North West	SW035, SW036

Sediment	
On-base - Sub-Catchment A	SD002, SD003, SD032, SD053, SD065, SD114
On-base - Sub-Catchment B	SD055, SD555
On-base - Sub-Catchment C	SD040
On-base – Boundary	SD115, SD116
On-base - Dochra Airfield	SD004, SD005
Off-base - North East & Singleton STP	SD039, SD046, SD047, SD539, SD563
Off-base - North West	SD052, SD080

Notes:

* Location dry during the scheduled events in the monitoring period, and also dry/with insufficient water to sample during previous monitoring periods.

** Locations inaccessible during the scheduled event/s in the monitoring period.

^ Locations are private bores with a tap outlet (not a monitoring well). The depth of the bores are unknown.

7.1.2 Use of Historical Data

In addition to the OMP data, AECOM also considered the historical data for on-base and off-base areas that are available in the Defence database. Historical data have been included in the analytical result tables, **Table T5** to **Table T7** in **Appendix B**, and analytical deviations tables in **Appendix D**, as well as in Mann-Kendall analysis and temporal trend graphs for PFOS, PFHxS, PFOA and or PFOS+PFHxS concentrations presented in **Appendix C**.

Note that Mann Kendall analysis and temporal trend graphs have not been prepared for PFBS given that all reported concentrations in groundwater (during the monitoring period and historical data) were below the adopted human health screening criteria.

The Mann Kendall analysis was used to assess the trends in the concentrations in groundwater only, and whether they have a monotonic upward or downward trend. The significance of these trends is determined by the confidence factor, or *p* value, of the analysis, as follows:

- a confidence factor over 95% indicates that there is an increasing or decreasing trend.
- a confidence factor over 90% indicates the there is a ‘probably increasing’ or ‘probably decreasing’ trend.
- a confidence factor less than 90% indicates ‘Stable’ or ‘No Change’.

Trend analysis was only undertaken for areas or locations which were sampled in the monitoring period and for locations which were consistently greater than the LOR, with a minimum of four sampling rounds. Where sample results were less than the LOR, half the LOR[1] was adopted for the Mann Kendall analysis.

Mann Kendall analysis was not used to assess the trends in PFAS concentrations in surface waters or sediments, given that variables such as rainfall, which influence PFAS concentrations are not factored into the analysis.

Temporal trend graphs for PFOS, PFHxS and/or PFOA concentrations were prepared for each matrix, against the 30-day average daily rainfall total (in mm) to allow for assessment of the influence of rainfall on PFAS concentrations. Locations with PFAS concentrations consistently below LOR were excluded from the temporal graphs.

[1] where multiple LOR thresholds were present for a sample location, the average of half the LOR values was used.

7.2 Groundwater Results

7.2.1 Groundwater Field Observations

Groundwater monitoring well condition and field observations at the locations visited during the monitoring period are provided in **Table T1** and **Table T2** in **Appendix B** and key observations are summarised below.

July 2024

- In MW121 the well gatic was full of water to above top of casing. The water was removed prior to opening the well and sampling and given the J-cap was secure, water ingress into the well was unlikely, and the groundwater sampled was considered representative.
- MW188D had a damaged monument, with both casing and monument snapped off at ground level. The part of the casing in the ground was still intact, and given the J-cap was secure, water ingress into the well was unlikely, and the groundwater sampled was considered representative. PFAS concentrations were found to be consistent with the July 2022 results (at the time when the well was noted to be in good condition).
- No visible indications of contamination were observed in groundwater during the sampling. Sulphurous like odours were recorded at five groundwater locations (MW008, MW109, MW124, MW167, MW188D).

February 2025

- MW104 and MW109 were noted to have either partial or full blockages at the base of the well which were attributed to either a build-up of sediment or roots intrusion in the wells. MW104 was dry and therefore not sampled, whereas MW109 was able to be sampled from within the screen interval.
- No visible indications of contamination were observed in groundwater during the sampling. Organic odours were noted at one groundwater location (MW109).

7.2.2 Groundwater Elevations

The standing water level (SWL) was measured in all monitoring wells, prior to sampling and during targeted gauging rounds conducted during each monitoring event, to evaluate Groundwater Elevation (GWE). The SWL and GWE from the July 2024 and February 2025 events are presented in **Table T1** in **Appendix B** and summarised by area in **Table 9** and **Table 10** below, for the shallow and deep aquifers, respectively.

Table 9 Summary of groundwater elevations: shallow aquifer

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
On-base – DNSDC (MW048, MW052)					
July 2024	2	1.402 (MW048)	1.898 (MW052)	67.438# (MW048)	70.178# (MW052)
February 2025	Locations scheduled on a biennial frequency, not gauged during this event				
On-base – Helicopter Landing Ground (MW059)					
July 2024	1	2.532#		58.608#	
February 2025	Location scheduled on a biennial frequency, not gauged during this event				
On-base – Dochra Airfield (MW073)					
July 2024	1	10.280		37.630	
February 2025	Location scheduled on a biennial frequency, not gauged during this event				
On-base – Northern Cantonment Boundary (MW104*, MW110, MW115, MW1118)					
July 2024	4	13.000 (MW104)	17.405 (MW118)	31.790 (MW115)	35.315 (MW118)
February 2025	1	13.303# (MW110)		32.097# (MW110)	
Off-base – Northern Boundary (MW126, MW128, MW188S)					
July 2024	3	9.150 (MW188S)	11.320 (MW128)	31.970 (MW188S)	32.760 (MW128)
February 2025	Locations scheduled on an annual frequency, not gauged during this event				
Off-base – North (MW056, MW121, MW124, MW129, MW132**^, MW139^, MW187S)**					
July 2024	4	5.875 (MW056)	8.980 (MW187S)	28.835 (MW056)	32.675 (MW121)
February 2025	Locations scheduled on an annual frequency, not gauged during this event				

Notes
mAHD = metres relative to Australian Height Datum, mbTOC = metres below Top of Casing, Min = Minimum, Max = Maximum
* Location dry during the monitoring period
** Locations inaccessible during the scheduled event in the monitoring period
^ Locations are private bores with a tap outlet (not a monitoring well) and hence cannot be gauged
# Reading from targeted gauging event presented.

Table 10 Summary of groundwater elevations: deep aquifer

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
On-base - FCFS and FTP (MW008, MW011, MW167)					
July 2024	3	12.913 (MW109)	13.890 (MW114)	32.010 (MW114)	33.900# (MW102)
February 2025	Locations scheduled on a biennial frequency, not gauged during this event				
On-base – DNSDC (MW049*, MW050)					
July 2024	1	9.870# (MW050)		54.530# (MW050)	
February 2025	Locations scheduled on a biennial frequency, not gauged during this event				
On-base – Dochra Airfield (MW063, MW071)					
July 2024	2	8.035 (MW071)	11.095 (MW063)	31.785 (MW063)	39.835 (MW071)
February 2025	Locations scheduled on a biennial frequency, not gauged during this event				

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
On-base – Northern Cantonment Boundary (MW102, MW109, MW114)					
July 2024	3	9.845# (MW008)	11.222# (MW167)	61.428# (MW167)	64.255# (MW008)
February 2025	2	12.827# (MW109)	12.924# (MW102)	32.273# (MW109)	33.896# (MW102)
Off-base – North Boundary (MW188D)					
July 2024	1	9.025#		32.225#	
February 2025	Location scheduled on an annual frequency, not gauged during this event				
Off-base – North (MW187D)					
July 2024	1	8.735#		31.495#	
February 2025	Location scheduled on an annual frequency, not gauged during this event				

Notes
mAHD = metres relative to Australian Height Datum, mbTOC = metres below Top of Casing, Min = Minimum, Max = Maximum
* Location inaccessible during the scheduled event in the monitoring period.
# Reading from targeted gauging event presented.

It is noted that although the wells target discrete aquifers, based on SWLs the hydraulic heads appear to be similar in the majority of locations between deep and shallow. This suggests that there may be a degree of connectivity between the shale and the shallow soil profiles. This is further supported by the geochemical parameters (refer to **Section 7.2.4**) which do not show significant variability between shallow and deep. This is most easily observed at MW187S/MW187D and MW188S/MW188D.

When comparing GWE data from this monitoring period to the previous two years of OMP GWE data, fluctuations of around 0.2 m on average were observed for individual wells, both above historical maximums and below historical minimums. However, it was also noted that all GWEs recorded during this monitoring period were within historical ranges when including previous investigation data outside of the OMP, such as the DSI (AECOM, 2019). Overall, there were no significant changes observed in the water table for the on-base and off-base monitoring areas during the monitoring period.

Additionally, it is noted that groundwater monitoring well MW104 has been consistently dry or has had insufficient water for sampling since the commencement of the OMP at the base. No groundwater sample was collected from this location during the DSI (AECOM, 2019) or during any other investigation (based on the Defence ESdat database). As mentioned in **Section 3.2**, MW104 is planned to be removed from the OMP.

7.2.3 Groundwater Flow Direction

Based on the SWL and survey data collected during the targeted gauging round on 04 July 2024, the interpreted potentiometric contours indicate that the inferred local groundwater flow direction within the shallow and deep aquifers is towards the north/north east, which is consistent with previous investigations.

The interpreted potentiometric contours for July 2024 monitoring event are presented on **Figure F20** and **Figure F21** in **Appendix A**, for the shallow and deep wells, respectively.

7.2.4 Groundwater Quality Parameters

Groundwater quality parameters were measured during the collection of groundwater samples. The ex-situ readings of groundwater quality parameters from the July 2024 and February 2025 sampling events are presented in **Table T2** in **Appendix B** and summarised in **Table 11** (shallow aquifer) and **Table 12** (deep aquifer) for locations within each area.

The readings indicate:

- Moderately oxygenated conditions, with lower oxygen conditions noted in the deep aquifer.
- Fresh to saline groundwater in the shallow aquifer and brackish to saline groundwater in the deep aquifer.
- Slightly acidic to neutral conditions in the shallow aquifer and slightly acidic to alkaline conditions in the deep aquifer.
- Reducing to mildly oxidising conditions across both aquifers.

The water quality parameters reported in each event during the monitoring period were generally consistent with previously reported data. No significant variations were observed in the data set.

Table 11 Summary of groundwater quality parameters: shallow aquifer

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Oxidation-Reduction Potential, Corrected (mV)	
	Min	Max	Min	Max	Min	Min	Max	Min	Max	Min
On-base - DNSDC (MW048, MW052)										
July 2024	2.20 (MW052)	3.65 (MW048)	16.9 (MW052)	20.0 (MW048)	171.9 (MW052)	364.0 (MW048)	5.46 (MW048)	6.17 (MW052)	216.2 (MW048)	271.8 (MW052)
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base - Helicopter Landing Ground (MW059)										
July 2024	1.39		16.9		20,013.0		6.71		229.3	
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base – Dochra Airfield (MW073)										
July 2024	1.51		20.9		25,914.0		6.72		153.6	
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base – Northern Boundary (MW104*, MW110, MW115, MW1118)**										
July 2024	2.48 (MW110)	3.31 (MW118)	18.5 (MW110)	18.9 (MW118)	15,285.0 (MW118)	18,490.0 (MW110)	6.84 (MW118)	7.13 (MW110)	184.8 (MW110)	186.5 (MW118)
February 2025	1.96 (MW110)		21.2 (MW110)		19,926.0 (MW110)		7.01 (MW110)		79.0 (MW110)	
Off-base – Northern Boundary (MW126, MW128, MW188S)										
July 2024	2.37 (MW188S)	4.97 (MW126)	17.3 (MW126)	18.2 (MW128)	3,728.0 (MW126)	7,390.0 (MW188S)	6.96 (MW128)	7.29 (MW126)	88.6 (MW188S)	350.0 (MW128)
February 2025	Locations scheduled on an annual frequency, therefore not sampled during this sampling event									
Off-base – North and North East (MW056, MW121, MW124, MW129*, MW132***, MW139, MW187S)**										
July 2024	2.93 (MW121)	5.88 (MW139)	13.8 (MW139)	17.2 (MW056)	747 (MW121)	7,459.0 (MW124)	6.91 (MW187S)	7.33 (MW056)	148.8 (MW121)	390.7 (MW056)
February 2025	Locations scheduled on an annual frequency, therefore not sampled during this sampling event									

Notes: * Location dry during the scheduled events in the monitoring period; ** Location sampled but insufficient water present for parameters; *** Locations inaccessible during the scheduled event in the monitoring period.

Table 12 Summary of groundwater quality parameters: deep aquifer

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Oxidation-Reduction Potential, Corrected (mV)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
On-base - FCFS and FTP (MW008, MW011, MW167)										
July 2024	0.69 (MW008)	1.92 (MW011)	18.9 (MW011)	19.9 (MW167)	20,655.0 (MW011)	26,668.0 (MW008)	5.62 (MW011)	6.89 (MW008)	61.6 (MW167)	203.2 (MW011)
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base – DNSDC (MW049*, MW050)										
July 2024	3.71 (MW050)		16.8 (MW050)		12,693.0 (MW050)		6.87 (MW050)		217.6 (MW050)	
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base – Dochra Airfield (MW063, MW071)										
July 2024	2.14 (MW071)	3.86 (MW063)	17.6 (MW063)	19.7 (MW071)	10,921.0 (MW071)	13,930.0 (MW063)	7.57 (MW063)	9.88 (MW071)	77.9 (MW071)	370.2 (MW063)
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event									
On-base – Northern Boundary (MW102, MW109, MW114)										
July 2024	1.07 (MW109)	2.32 (MW102)	15.3 (MW102)	19.9 (MW114)	5,623.0 (MW114)	18,404.0 (MW102)	6.68 (MW102)	7.46 (MW114)	83.9 (MW114)	216.5 (MW102)
February 2025	0.65 (MW109)	2.04 (MW102)	21.3 (MW109)	21.5 (MW102)	12,360.0 (MW109)	21,054.0 (MW102)	6.63 (MW102)	7.72 (MW109)	-59.7 (MW109)	237.8 (MW102)
Off-base – North Boundary (MW188D)										
July 2023	0.93		18.7		10,638.0		7.91		88.2	
February 2025	Location scheduled on an annual frequency, therefore not sampled during this sampling event									
Off-base – North (MW187D)										
July 2023	2.36		17.5		10,357.0		6.99		259.0	
February 2025	Location scheduled on an annual frequency, therefore not sampled during this sampling event									

Notes:

* Location inaccessible during the scheduled event in the monitoring period.

7.2.5 Groundwater Analytical Results

Groundwater analytical results from the monitoring period as well as available historical groundwater analytical results for OMP sampling locations (including data from other projects) are presented in **Table T5** (in **Appendix B**). Groundwater results from July 2024 and February 2025 are presented spatially on **Figure F5** to **Figure F8** (in **Appendix A**). Additionally, current and historical groundwater concentrations of PFOS, PFHxS and PFOA have been displayed graphically on temporal trend graphs, on **Graph G01** to **Graph G39** (in **Appendix C**). As previously noted, temporal trend graphs have not been prepared for PFBS given that concentrations reported during the current monitoring period and historically have remained below the adopted human health screening criteria.

AECOM notes that as the monitoring period pre-dated the release of the updated NHMRC Drinking Water screening criteria in 2025, the laboratory LOR for PFAS in the groundwater samples analysed during this period are higher than the updated human health screening criteria. Therefore, direct comparison to the new drinking water screening criteria for PFOS was not possible where concentrations were reported below the standard laboratory LOR.

A summary of groundwater results from the monitoring period is provided in **Table 13** (shallow aquifer) and **Table 14** (deep aquifer) for locations within each source area and other areas of interest. Assessment of the groundwater results against OMP triggers (Defence, 2025b) has been completed in **Section 8.0**.

Table 13 Summary of PFOA, PFOS and PFOS+PFHxS concentrations in groundwater - shallow aquifer

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
On-base - DNSDC (MW048, MW052)						
July 2024	2 Primary	PFOA	0.03 µg/L(MW052) to 0.08 µg/L (MW048)	2	0	0
		PFOS	0.06 µg/L(MW048) to 0.72 µg/L (MW052)	2	2	2
		PFHxS	0.62 µg/L(MW052) to 3.04 µg/L (MW048)	2	2	NA
		PFBS	0.02 µg/L(MW052) to 0.2 µg/L (MW048)	2	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					
On-base - Helicopter Landing Ground (MW059)						
July 2024	1 Primary	PFOA	<LOR (MW059)	0	0	0
		PFOS	<LOR (MW059)	0	0	0
		PFHxS	0.04 µg/L(MW059)	1	1	NA
		PFBS	<LOR (MW059)	0	0	NA
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event					
On-base – Dochra Airfield (MW073)						
July 2024	1 Primary, 2 QC	PFOA	<LOR	0	0	0
		PFOS	<LOR	0	0	0
		PFHxS	<LOR	0	0	NA
		PFBS	<LOR	0	0	NA
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event					

On-base – Northern Boundary (MW104*, MW110, MW115, MW118)						
July 2024	3 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	0	0
		PFHxS	<LOR (multiple)	0	0	NA
		PFBS	<LOR (multiple)	0	0	NA
February 2025	1 Primary	PFOA	<LOR (MW110)	0	0	0
		PFOS	<LOR (MW110)	0	0	0
		PFHxS	<LOR (MW110)	0	0	NA
		PFBS	<LOR (MW110)	0	0	NA
Off-base – Northern Boundary (MW126, MW128, MW188S)						
July 2024	3 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	0	0
		PFHxS	<LOR (MW128) to 0.04 µg/L (MW188S)	2	1	NA
		PFBS	<LOR (multiple)	0	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					
Off-base – North and North East (MW056, MW121, MW124, MW129, MW132**, MW139, MW187S)**						
July 2024	5 Primary	PFOA	<LOR (multiple) to 0.01 µg/L (MW139)	1	0	0
		PFOS	<LOR (MW187S) to 0.07 µg/L (MW056)	4	4	4
		PFHxS	<LOR (multiple) to 0.02 µg/L (multiple)	3	0	NA
		PFBS	<LOR (multiple)	0	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					

Notes:

* Location dry during the scheduled events in the monitoring period

** Locations inaccessible during the monitoring period

[1] = Sample counts include intra-laboratory and inter-laboratory duplicates

multiple = the value applies to multiple locations

NA = Not applicable

Table 14 Summary of PFOA, PFOS and PFOS+PFHxS concentrations in groundwater – deep aquifer

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
On-base - FCFS and FTP (MW008, MW011, MW167)						
July 2024	3 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple) to 0.02 µg/L (MW011)	1	1	1
		PFHxS	<LOR (MW167) to 0.04 µg/L (MW011)	2	1	NA
		PFBS	<LOR (multiple)	0	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					
On-base – DNSDC (MW049*, MW050)						
July 2024	1 Primary	PFOA	<LOR (MW050)	0	0	0
		PFOS	<LOR (MW050)	0	0	0
		PFHxS	<LOR (MW050)	0	0	NA
		PFBS	<LOR (MW050)	0	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					
On-base – Dochra Airfield (MW063, MW071)						
July 2024	2 Primary, 2 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	0.02 µg/L(MW071) to 0.05 µg/L (multiple)	4	4	4
		PFHxS	<LOR (multiple) to 0.02 µg/L (MW071)	1	0	NA
		PFBS	<LOR (multiple)	0	0	NA
February 2025	Locations scheduled on a biennial frequency, therefore not sampled during this sampling event					
On-base – Northern Boundary (MW102, MW109, MW114)						
July 2024	3 Primary, 2 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	0	0

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
		PFHxS	<LOR (multiple)	0	0	0
		PFBS	<LOR (multiple)	0	0	NA
February 2025	2 Primary, 2 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple) to 0.11 µg/L (MW109)	1	1	1
		PFHxS	<LOR (multiple) to 0.16 µg/L (MW109)	1	1	NA
		PFBS	<LOR (multiple) to 0.02 µg/L (MW109)	1	0	NA
Off-base – Northern Boundary (MW188D)						
July 2024	1 Primary	PFOA	<LOR (MW188D)	0	0	0
		PFOS	0.01 µg/L(MW188D)	1	1	1
		PFHxS	<LOR (MW188D)	0	0	NA
		PFBS	<LOR (MW188D)	0	0	NA
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event					
Off-base – North (MW187D)						
July 2024	1 Primary	PFOA	<LOR (MW187D)	0	0	0
		PFOS	<LOR (MW187D)	0	0	0
		PFHxS	<LOR (MW187D)	0	0	NA
		PFBS	<LOR (MW187D)	0	0	NA
February 2025	Location scheduled on a biennial frequency, therefore not sampled during this sampling event					

Notes:

* Location inaccessible during the scheduled event in the monitoring period.

[1] = Sample counts include intra-laboratory and inter-laboratory duplicates

multiple = the value applies to multiple locations

NA = Not applicable

7.2.6 Groundwater Trend Analysis

Temporal trend graphs and Mann Kendall analysis are presented in **Appendix C** for PFOA, PFOS, and PFHxS concentrations in selected groundwater sampling locations indicative of a source area or area of interest (as presented in **Table 8** in **Section7.1**).

A summary of the locations with reported temporal trends are presented in **Table 15** below and are discussed in **Section 0**. In summary, the majority of groundwater locations had insufficient historical data where concentrations were reported above the LOR to complete a statistical analysis.

Where sufficient data was available, the majority of locations reported *no trend*, *stable* or *probably decreasing* concentration trends. One location within an on-base source area (MW048) reported *probably increasing* concentration trend for PFOA. This trend is not considered to be significant or change the understanding of the CSM or associated risk profile given the location is within a known source area.

Overall, this data suggests that there has been no significant changes in PFAS concentrations in groundwater during the monitoring period.

Table 15 Summary of Mann Kendall Trend Analysis

Location	Aquifer	Analyte	Historical Range	Current Monitoring Period	Mann Kendall trend in Previous OMR		Mann Kendall Trend in this OMR	
		Min – Max (µg/L)	Min – Max (µg/L)		Trend	Confidence Factor	Trend	Confidence Factor
On-Base – Northern Boundary								
MW109	**Deep**	PFOS	<LOR–0.28	<LOR–0.11	*No Trend*	84.5%	*No Trend*	76.2%
Off-base – Northern Boundary								
MW126	**Shallow**	PFHxS	<LOR-0.03	0.01	*No Trend*	*50.0 %*	*Stable*	*57.0 %*
Off-base – North and North East								
MW056	**Shallow**	PFOS	<LOR-0.12	0.07	*No Trend*	*75.8 %*	*No Trend*	*64.0 %*
		PFHxS	0.02-0.04	0.02	*No Trend*	*67.5 %*	*Stable*	*50.0 %*
MW124	**Shallow**	PFHxS	<LOR-0.07	0.02	Not assessed[#]	-	*No Trend*	86.4%
MW139	**Shallow**	PFOS	0.02-0.04	0.03	*Stable*	*50.0 %*	*Stable*	50.0%
		PFHxS	0.06-0.08	0.01	*Stable*	*89.6 %*	Probably Decreasing	92.1%
On-Base – FCFS and FTP								
MW011	**Deep**	PFOS	0.02 - 0.12	0.02	*Stable*	*83.3%*	*Probably Decreasing*	*92.1%*
		PFHxS	0.02 - 0.0-3	0.04	*No Trend*	*83.3 %*	*No Trend*	*88.3%*
On-Base - DNSDC								
MW048	**Shallow**	PFOS	0.02-0.03	0.06	*Stable*	*83.3 %*	*Stable*	*40.8%*
		PFHxS	2.2-2.26	3.04	*No Trend*	*50.0 %*	*No Trend*	*88.3%*
		PFOA	0.03-0.06	0.08	*No Trend*	*72.9%*	*Probably Increasing*	*92.1%*

Note:
Italics: indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.
* Insufficient sample numbers at this location to allow for statistical assessment.

Insufficient sample results greater than LOR.

7.3 Surface Water and Wastewater Results

7.3.1 Surface Water and Wastewater Field Observations

Surface water and wastewater field observations at the locations visited during the monitoring period are provided in **Table T3** in **Appendix B** and key observations are summarised below.

July 2024

- No visible indications of contamination were observed at surface water and wastewater sampling location during the sampling event.
- Water was not flowing at approximately half of surface water locations sampled, across base and off-base areas.
- A biosheen was observed in waters at on-base location SW004.
- Organic odours were noted at SW002 (on-base in sub-catchment A) and at wastewater sampling location OTH006.

February 2025

- No visible indications of contamination were observed at surface water and wastewater sampling locations during the sampling event.
- Water was not flowing at almost all surface water locations sampled, across base and off-base areas. Four surface water locations, at the base boundary and at the Dochra airfield, were observed to be dry.
- One surface water location (SW114, on eastern base boundary in sub-catchment A) was considered to be no longer representative of surface water flow conditions due to a change in the landform.
- A biosheen was observed on the water's surface at on-base location SW034. Aquatic vegetation was observed on the water's surface at six locations on- and off-base.
- Sulphurous odours were noted at SW039 and SW563 (off-base in the north east and Singleton STP areas). Organic odours were noted at six surface water locations (on-base in sub-catchment A, and off-base in the north east, north west and Singleton STP areas), and effluent odours were noted at wastewater sampling location OTH006.

7.3.2 Surface Water Quality Parameters

Surface water quality parameters were measured during the collection of surface water samples. No water quality parameters are measured for the wastewater effluent samples. The surface water quality parameters from July 2024 and February 2025 events are presented in **Table T3** in **Appendix B** and summarised below in **Table 16** for locations within each sub-catchment.

The readings indicate:

- Well oxygenated to poorly oxygenated conditions (with lowest values recorded at location on-base in sub-catchment A).
- Fresh water conditions generally, with a few locations closer to brackish water conditions (on-base in sub-catchment C and at the boundary, and off-base in north east and north west).
- Moderately acidic to alkaline conditions (most acidic values observed on-base in sub-catchment C and most alkaline value observed off-base in the Singleton STP area).
- Reducing to mildly oxidising conditions.

The water quality parameters reported in each event during the monitoring period were generally within previous data ranges, with no significant deviations observed.

Table 16 Summary of surface water quality parameters

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Oxidation-Reduction Potential, Corrected (mV)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
On-base - Sub-catchment A (SW002, SW003, SW026, SW032, SW034, SW114)										
July 2024	3.00 (SW002)	7.40 (SW003)	11.3 (SW034)	19.0 (SW114)	127.0 (SW003)	895.0 (SW026)	5.95 (SW032)	8.19 (SW114)	82.3 (SW026)	373.8 (SW032)
February 2025	0.63 (SW002)	3.60 (SW026)	22.4 (SW002)	28.1 (SW032)	165.1 (SW002)	316.2 (SW026)	5.65 (SW002)	6.24 (SW034)	238.9 (SW003)	289.3 (SW002)
On-base - Sub-catchment B (SW028 and SW555*)										
July 2024	3.52 (SW028)		12.7 (SW028)		277.6 (SW028)		6.65 (SW028)		312.0 (SW028)	
February 2025	2.00 (SW028)		26.1 (SW028)		190.8 (SW028)		6.45 (SW028)		282.9 (SW028)	
On-base - Sub-catchment C (SW040)										
July 2024	5.09		13.0		1,225.0		7.20		158.6	
February 2025	3.00		27.9		1,327.0		6.74		258.6	
On-base - Boundary (SW115 and SW116)										
July 2024	7.03 (SW116)	7.73 (SW115)	13.2 (SW115)	16.8 (SW116)	471.0 (SW115)	1,257.0 (SW116)	7.32 (SW116)	7.78 (SW115)	181.9 (SW115)	208.3 (SW116)
February 2025	Locations dry during this sampling event									

On-base - Dochra Airfield (SW004 and SW005)										
July 2024	3.93 (SW004)	6.70 (SW005)	9.3 (SW005)	9.9 (SW004)	139.0 (SW004)	361.2 (SW005)	6.42 (SW004)	6.71 (SW005)	346.1 (SW005)	355.5 (SW004)
February 2025	Locations dry during this sampling event									
Off-base - North East (SW039 and SW064) & Singleton STP (SW065, SW553, SW563)										
July 2024	3.90 (SW039)	8.42 (SW563)	12.8 (SW039)	15.6 (SW563)	154.3 (SW064)	512.0 (SW065)	7.02 (SW064)	9.18 (SW563)	161.9 (SW553)	325.7 (SW039)
February 2025	1.77 (SW039)	5.71 (SW563)	27.2 (SW039)	32.0 (SW064)	421.8 (SW553)	1,078.0 (SW039)	6.86 (SW039)	9.21 (SW563)	173.7 (SW039)	210.7 (SW065)
Off-base - North West (SW035 and SW036)										
July 2024	2.88 (SW036)	4.13 (SW035)	13.3 (SW035)	14.4 (SW036)	176.6 (SW036)	227.3 (SW035)	6.36 (SW036)	6.44 (SW035)	299.4 (SW036)	316.1 (SW035)
February 2025	3.70 (SW036)	5.48 (SW035)	28.8 (SW035)	29.4 (SW036)	227.7 (SW036)	1,841.0 (SW035)	6.77 (SW036)	6.79 (SW035)	202.0 (SW035)	204.6 (SW036)

Notes: * Location inaccessible during the scheduled events in the monitoring period.

7.3.3 Surface Water and Wastewater Analytical Results

Surface water and wastewater analytical results from the monitoring period as well as available historical surface water and wastewater analytical results for OMP sampling locations (including data from other projects) are presented in **Table T6** in **Appendix B**. Surface water and wastewater results from July 2024 and February 2025 are presented spatially on **Figure F9** to **Figure F12** in **Appendix A**. Additionally, current and historical surface water and wastewater concentrations of PFOS, PFHxS and PFOA have been displayed graphically on temporal trend graphs, on **Graph G40** to **Graph G63** (in **Appendix C**).

A summary of surface water and wastewater results from July 2024 and February 2025 events is provided in **Table 17** for locations by sub-catchment / area of interest. Assessment of the surface water results against OMP triggers (Defence, 2025b) has been completed in **Section 8.0**.

Table 17 Summary of PFOA, PFOS and PFOS+PFHxS concentrations in surface water and wastewater

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
On-base - Sub-Catchment A (SW002, SW003, SW026, SW032, SW034, SW114)						
July 2024	6 Primary, 2 QC	PFOA	<LOR (multiple) to 0.05 µg/L (SW002)	4	0	0
		PFOS	<LOR (SW114) to 0.67 µg/L (SW002)	7	NA	7
		PFOS+PFHxS	<LOR (SW114) to 1.66 µg/L (SW002)	7	0	NA
February 2025	5 Primary, 2 QC	PFOA	<LOR (multiple) to 0.03 µg/L (multiple)	4	0	0
		PFOS	0.03 µg/L (SW003) to 0.8 µg/L (SW002)	7	NA	7
		PFOS+PFHxS	0.05 µg/L (SW003) to 1.35 µg/L (SW002)	7	0	NA
On-base - Sub-Catchment B (SW028, SW555)**						
July 2024	1 Primary	PFOA	<LOR (SW028)	0	0	0
		PFOS	0.01 µg/L (SW028)	1	NA	1
		PFOS+PFHxS	0.01 µg/L (SW028)	1	0	NA
February 2025	1 Primary	PFOA	<LOR (SW028)	0	0	0
		PFOS	0.02 µg/L (SW028)	1	NA	1
		PFOS+PFHxS	0.03 µg/L (SW028)	1	0	NA

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
On-base - Sub-Catchment C (SW040)						
July 2024	1 Primary	PFOA	<LOR (SW040)	0	0	0
		PFOS	<LOR (SW040)	0	NA	0
		PFOS+PFHxS	<LOR (SW040)	0	0	NA
February 2025	1 Primary	PFOA	<LOR (SW040)	0	0	0
		PFOS	<LOR (SW040)	0	NA	0
		PFOS+PFHxS	<LOR (SW040)	0	0	NA
On-base - Boundary (SW115, SW116)						
July 2024	2 Primary	PFOA	<LOR (SW116) to 0.03 µg/L (SW115)	1	0	0
		PFOS	<LOR (SW116) to 0.85 µg/L (SW115)	1	NA	1
		PFOS+PFHxS	<LOR (SW116) to 1.53 µg/L (SW115)	1	0	NA
February 2025	Locations dry during this sampling event					
On-base - Dochra Airfield (SW004, SW005)						
July 2024	2 Primary, 2 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	NA	0
		PFOS+PFHxS	<LOR (multiple)	0	0	NA
February 2025	Locations dry during this sampling event					

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
Off-base - North East (SW039, SW064) &Singleton STP (OTH006, SW065, SW553, SW563)						
July 2024	6 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple) to 0.11 µg/L (SW553)	4	NA	4
		PFOS+PFHxS	<LOR (multiple) to 0.25 µg/L (SW553)	4	0	NA
February 2025	6 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	0.01 µg/L(multiple) to 0.04 µg/L (SW064)	6	NA	6
		PFOS+PFHxS	0.01 µg/L(multiple) to 0.04 µg/L (SW064)	6	0	NA
Off-base - North West (SW035, SW036)						
July 2024	2 Primary	PFOA	<LOR (SW035) to 0.01 µg/L (SW036)	1	0	0
		PFOS	0.01 µg/L(SW035) to 0.46 µg/L (SW036)	2	NA	2
		PFOS+PFHxS	0.01 µg/L(SW035) to 0.82 µg/L (SW036)	2	0	NA
February 2025	2 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (SW035) to 0.42 µg/L (SW036)	1	NA	1
		PFOS+PFHxS	<LOR (SW035) to 0.63 µg/L (SW036)	1	0	NA

Notes:

[1] = Sample counts include intra-laboratory and inter-laboratory duplicates

multiple = the value applies to multiple locations

NA = Not applicable

7.3.4 Surface Water Temporal Trend Analysis

Surface water temporal trend graphs for PFOA, PFOS and PFHxS concentrations are provided on **Graph G40** to **Graph G63** in **Appendix C**.

Locations with PFAS concentrations consistently below LOR were excluded from the temporal graphs. Additionally, the 30-day average daily rainfall total (in mm) has been included on the temporal trend graphs to allow for assessment of the potential for influence of rainfall on PFAS concentrations.

The interpretive analysis of surface water condition in the context of the trigger assessments, the CSM, and risk profile review are presented in **Section 8.0**, **Section 9.0**, and **Section 10.0** respectively.

In summary, concentrations of PFAS in surface water are highly variable, with some locations reporting higher concentrations during the summer, drier months when compared to the wetter and colder winter months. Additionally, no trends were visible in the surface water temporal trend graphs with the majority of concentrations reported during the monitoring period being within the historical range.

7.4 Sediment

7.4.1 Sediment Field Observations

Sediment field observations from the monitoring period are presented in **Table T4** in **Appendix B**.

The sediment observed during the monitoring period comprised mainly clays and silts (silty clay and sandy silt), with sand (silty and clayey sand) and gravels (sandy gravels) at some locations. Most sediment samples contained some organic matter in the form of grass rootlets. No anthropogenic inclusions or staining were observed. Organic odours were noted at one sediment location (SD046) during February 2025.

7.4.2 Sediment Analytical Results

Sediment analytical results from the monitoring period as well as the available historical sediment analytical results for OMP sampling locations (including data from other projects) are presented in **Table T7** in **Appendix B**. The sediment results from July 2024 and February 2025 are presented spatially on **Figure F13** to **Figure F16** in **Appendix A**. Additionally, current and historical sediment concentrations of PFOA, PFOS and PFHxS have been displayed graphically on temporal trend graphs, on **Graph G64** to **Graph G87** (in **Appendix C**).

A summary of sediment results from July 2024 and February 2025 events is provided in **Table 18** for locations by sub-catchment / area of interest. Summary of assessment triggers and interpretation of results are presented in **Section 8.0**.

Table 18 Summary of PFOA, PFOS and PFOS+PFHxS concentrations in sediment

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR
On-base - Sub-Catchment A (SD002, SD003, SD053, SD065, SD114)				
July 2024	6 Primary, 2 QC	PFOA	<LOR (multiple) to 0.0002 mg/kg (SD002)	1
		PFOS	0.0005 (SD114) to 0.0095 mg/kg (SD065)	8
		PFOS+PFHxS	0.0005 (SD114) to 0.0114 mg/kg (SD065)	8
February 2025	5 Primary	PFOA	<LOR (multiple)	0
		PFOS	0.0041 (SD003) to 0.0266 mg/kg (SD032)	5
		PFOS+PFHxS	0.0045 (SD003) to 0.0279 mg/kg (SD032)	5
On-base - Sub-Catchment B (SD055, SD555*)				
July 2024	1 Primary	PFOA	<LOR (SD055)	0
		PFOS	0.0039 mg/kg (SD055)	1
		PFOS+PFHxS	0.0043 mg/kg (SD055)	1
February 2025	1 Primary	PFOA	<LOR (SD055)	0
		PFOS	0.0039 mg/kg (SD055)	1
		PFOS+PFHxS	0.0039 mg/kg (SD055)	1
On-base - Sub-Catchment C (SD040)				
July 2024	1 Primary	PFOA	<LOR (SD040)	0
		PFOS	0.0002 mg/kg (SD040)	1
		PFOS+PFHxS	0.0002 mg/kg (SD040)	1
February 2025	1 Primary	PFOA	<LOR (SD040)	0
		PFOS	0.0005 mg/kg (SD040)	1
		PFOS+PFHxS	0.0005 mg/kg (SD040)	1
On-base - Boundary (SD115, SD116)				
July 2024	2 Primary	PFOA	<LOR (multiple)	0
		PFOS	0.0016 (SD116) and 0.0362 mg/kg (SD115)	2
		PFOS+PFHxS	0.002 (SD116) and 0.0371 mg/kg (SD115)	2
February 2025	2 Primary, 2 QC	PFOA	<LOR (multiple)	0
		PFOS	0.0026 (SD115) to 0.0044 mg/kg (SD115)	4
		PFOS+PFHxS	0.0029 (SD115) to 0.0047 mg/kg (SD115)	4

Sampling Event	No. of Samples[1]	Compound	Concentration Range in Sampling Event	No. of Samples[1] with Concentration > LOR
On-base - Dochra Airfield (SD004, SD005)				
July 2024	2 Primary, 2 QC	PFOA	<LOR (multiple)	0
		PFOS	<LOR (multiple) to 0.0009 mg/kg (SD004)	2
		PFOS+PFHxS	<LOR (multiple) to 0.0009 mg/kg (SD004)	2
February 2025	2 Primary, 2 QC	PFOA	<LOR (multiple)	0
		PFOS	<LOR (multiple) to 0.0008 mg/kg (SD005)	2
		PFOS+PFHxS	<LOR (multiple) to 0.0008 mg/kg (SD005)	2
Off-base - North East (SD039, SD046) & Singleton STP (SD047, SD539, SD563)				
July 2024	5 Primary	PFOA	<LOR (multiple) to 0.0029 mg/kg (SD563)	1
		PFOS	0.0004 (SD047) to 0.106 mg/kg (SD563)	5
		PFOS+PFHxS	0.0004 (SD047) to 0.107 mg/kg (SD563)	5
February 2025	5 Primary	PFOA	<LOR (multiple) to 0.0004 mg/kg (SD539)	2
		PFOS	0.0004 (SD047) to 0.0241 mg/kg (SD563)	5
		PFOS+PFHxS	0.0004 (SD047) to 0.0244 mg/kg (SD563)	5
Off-base - North West (SD052, SD080)				
July 2024	2 Primary	PFOA	<LOR (multiple)	0
		PFOS	0.0014 (SD052) and 0.0205 mg/kg (SD080)	2
		PFOS+PFHxS	0.0014 (SD052) and 0.0219 mg/kg (SD080)	2
February 2025	2 Primary	PFOA	<LOR (multiple)	0
		PFOS	0.0008 (SD052) and 0.0033 mg/kg (SD080)	2
		PFOS+PFHxS	0.0008 (SD052) and 0.0036 mg/kg (SD080)	2

Notes:

* Location was inaccessible during the monitoring period

[1] = Sample counts include intra-laboratory and inter-laboratory duplicates

multiple = the value applies to more than one location

7.4.3 Sediment Temporal Trend Analysis

Sediment temporal trend graphs for PFOA, PFOS and PFHxS concentrations are provided on **Graph G64** to **Graph G87** in **Appendix C**.

The interpretive analysis of sediment condition in the context of the trigger assessments, the CSM, and risk profile review are presented in **Section 8.0, Section 9.0**, and **Section 10.0** respectively.

In summary, concentrations of PFAS in sediment were generally stable, with concentrations fluctuating within the same order of magnitude in some locations. Additionally, no trends were visible in the sediment temporal trend graphs with the majority of concentrations reported during the monitoring period being within the historical range.

8.0 Interpretive Analysis and Discussion

The assessment of analytical results from this monitoring period against the OMP trigger levels and associated responses is presented in **Table 19**.

Table 19 Trigger Levels Assessment

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
Spatial and Temporal Variability				
First time detect at a monitoring location not associated with a known on-base PFAS source area.[2]	Groundwater	All	-	There were no first-time detections of PFAS in groundwater, surface water or sediment samples at monitoring locations not associated with known on-base sources of PFAS during the monitoring period.
	Surface water	All	-	
	Sediment	All	-	
First time detect at a monitoring location, outside an identified PFAS source area, that suggests PFAS migration is occurring from a known PFAS source area.[3]	Groundwater	PFHxS	MW188S (0.04 µg/L)	The first-time detection of PFAS in shallow off-base well MW188S is not considered to be associated with migration from known on-base source areas in groundwater given that concentrations of PFAS in the shallow base boundary wells (MW110, MW115 and MW118) have remained consistently below the laboratory LOR since the OMP commenced in 2022. This indicates that PFAS is not currently migrating from the northern boundary of the base in the shallow aquifer at concentrations above the standard laboratory LOR. Given that PFAS was reported in surface water leaving the northern base boundary via the ephemeral drainage channel (SW115) flowing north, past MW188S, to the STP, it is possible that the first-time detection of PFAS at this location is associated with infiltration of PFAS impacted surface water to the shallow groundwater table. Additional monitoring will be required to confirm the first-time detection and determine whether any trends are visible. The known extent of PFAS in groundwater will be reevaluated in subsequent OMRs following future testing for PFOS at the low-level laboratory LOR.

[2] To be considered potentially significant if repeat detections occur over three subsequent monitoring events. Monitoring locations cross gradient up-gradient or up-stream of PFAS source areas.
[3] To be considered potentially significant if repeat detections occur over three subsequent monitoring events. Monitoring locations down gradient or down-stream of PFAS source areas.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
	Surface water	All	-	No first-time detection of PFAS were reported in the surface water locations sampling during the monitoring period
	Sediment	All	-	No first-time detection of PFAS were reported in the sediment locations sampling during the monitoring period
New maximum at monitoring location (a concentration that is considered to be “significant” within the context of the CSM)[4]	Groundwater	-	-	Given that the concentrations of PFAS in groundwater reported during the monitoring period were either within the historical range, or within the same order of magnitude as historical maximums at the respective locations, there were no new maximum concentrations reported that are considered to be “significant” in the context of the CSM.
	Surface water	-	-	Given that the concentrations of PFAS in surface water reported during the monitoring period were either within the historical range, or within the same order of magnitude as historical maximums at the respective locations, there were no new maximum concentrations reported that are considered to be “significant” in the context of the CSM

[4] Significant is considered to be one order of magnitude higher or greater than historical ranges. Consider laboratory variability of 30 %.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
	Sediment	PFOA	SD563 (0.0029 mg/kg)	Concentrations of PFAS were within the historical range, or within the same order of magnitude as historical results, in the sediment samples analysed during the monitoring period with the exception of PFOA in SD563 (downstream of the STP discharge point). At SD563 concentrations of PFOA were an order of magnitude higher than historical maximums at this location. New maximum concentrations of PFOS, PFOA and PFHxS were reported in the collocated surface water sample (SW563) during this monitoring period, though they were within the same order of magnitude as historical results. Additional rounds of monitoring will be required to determine whether an increasing trend is present at this location.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
Increasing trend at a monitoring location or within a specified area.[5]	Groundwater	PFOA	MW048 (92.1% probably increasing)	The potentially increasing concentration trend for PFOA at MW048 is not altogether unexpected given the well's location within a known PFAS source area (DNSDC) on-base. Given that the concentrations of PFOA are an order of magnitude below the adopted human health screening criteria, and that groundwater is not used at the base for beneficial purposes, this potential increase does not change the understanding of the CSM, or the associated risk profile. Furthermore, the trends for PFOS and PFHxS in MW048 were noted to be "stable" and "no trend" respectively.
	Surface Water	No statistical trend assessment was conducted. A review of the temporal trend graphs for surface water concentrations (Graphs G40 to G63 in **Appendix C**) indicated that concentrations of PFAS in surface water are highly variable, with some locations reporting higher concentrations during the summer, drier months when compared to the wetter and colder winter months. No clear increasing potential trends were visible in the surface water temporal trend graphs reviewed with the majority of concentrations reported during the monitoring period being within the historical range.		
	Sediments	No statistical trend assessment was conducted. A review of the temporal trend graphs for sediment concentrations (Graphs G64 to G87 in **Appendix C**) indicated that concentrations of PFAS in sediment were generally stable, with localised variability within the same order of magnitude visible in some locations. No clear increasing potential trends were visible in the sediment temporal trend graphs reviewed with the majority of concentrations reported during the monitoring period being within the historical range.		

[5] Applicable to base boundary and key off-base monitoring locations only, which include base boundary locations; MW102, MW109, MW110, MW114, MW115, MW118, and off-base monitoring locations; MW126, MW128, MW187S/D, MW188S/D.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
Decreasing trend at a monitoring location or within a specified area.[6]	Groundwater	PFOS	MW011 (92.1% probably decreasing)	Initial monitoring for PFAS in 2018 detected concentrations ~5 times higher than concentrations generally observed since. This decreasing trend is influenced by the overall reduction since that event. There is no linear decreasing trend present. This decreasing trend supports the findings of the surface water mass flux assessment that the FCFS and Fire Training Pits are not a significant source of PFAS on-base. No trend was identified in PFHxS or PFOA concentrations at MW011.
		PFHxS	MW139 (92.1% probably decreasing)	PFOS concentrations are stable, whilst PFHxS concentrations have reduced by almost 90% since December 2018. Total PFAS has also halved in that time. While the PFAS in MW139 is unlikely to be associated with known on-base source(s), continued monitoring at this location will provide visibility of temporal changes in off-base PFAS concentrations.
	Surface Water	No statistical trend assessment was conducted. No decreasing trends were visible in the Surface Water temporal trend graphs (Graphs G40 to G63 in **Appendix C**) with concentrations of PFAS in surface water samples either within the historical range, or within the same order of magnitude as historical results in the samples analysed during the monitoring period.		
	Sediments	No statistical trend assessment was conducted. A potential decreasing trend was observed for sample SD115 (located along the northern base boundary) for PFOS and PFHxS. No correlation in decreasing surface water concentrations was observed, noting that only limited surface water data is available for this location. Additional rounds of monitoring are required to determine whether there is a decreasing trend present.		
Changes to the CSM				

[6] Monitoring locations may be considered to be removed from the OMP if no longer required to assess the CSM / risk profile.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
New human health or ecological receptor or exposure path identified associated with a known on-base source area.[7]	General	No new human health or ecological exposure pathway associated with an on-base source area was identified during the monitoring period.		
Drinking water pathway identified in off-base property directly associated with a known on-base source area.[8]	-	No new complete drinking water source>receptor>pathway linkages were identified for off-base properties associated with a known on-base source during the monitoring period.		
Risk to human and ecological receptors				
New exceedance of published screening criteria of a monitoring location outside an identified PFAS source area, that suggests PFAS migration from a known PFAS source Area.[9]	Groundwater	A new exceedance of the adopted human health (drinking water) screening criteria was reported for PFHxS in MW188S during the monitoring period. It is possible that this new exceedance is associated with the infiltration of PFAS impacted surface water migrating off-base in the ephemeral drainage channel to the underlying shallow groundwater table. Given that there is no known use of groundwater for drinking water purposes in this area, the source>receptor>pathway linkages remain incomplete at this location.		
	Surface water	There were no new exceedances of published screening criteria in the surface water samples collected and analysed during the monitoring period.		

[7] New information regarding exposure pathways or receptors may be identified via an updated water use survey, change in land use, new monitoring location, or field observations.
[8] New information regarding exposure pathways or receptors may be identified via an updated water use survey, change in land use, new monitoring location, or field observations. Based on information reported in the HHERA (AECOM, 2021) groundwater within off-base monitoring locations is not used as a drinking water source.
[9] Applicable to base boundary and off-base monitoring locations only. New exceedances may not be unanticipated based on the understanding of plume dynamics and the CSM.

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
Exceedance of human health exposure point concentrations (EPC) (off-base monitoring locations).[10]	Groundwater	PFOS (EPC = 0.04 µg/L)	MW056 (0.07 µg/L)	Following a consistent exceedance of the groundwater EPC for PFOS at private bore MW056 since July 2023, AECOM contacted the property occupier in April 2025 to complete a revised water use survey and some additional sampling. Based on the information provided in the water use survey, and the sampling data collected, the risk profile for the typical scenario was considered to remain low and acceptable.
	Surface water	PFHxS (EPC = 0.28 µg/L)	SW036 (0.36 µg/L)	Concentrations of PFHxS continued to marginally exceed the EPC for surface water (based on a scenario of surface water being considered as the main stock drinking water source for livestock) in off-base surface water sample location SW036 during July 2025 event. During the January 2025, concentrations reduced to below the EPC, in line with historical concentrations prior to 2023. Additional monitoring will be required to confirm whether a decreasing trend is present. Concentrations of PFAS were below the EPCs in the remaining off-base surface water locations sampled during the monitoring period.
	Sediment	PFOS (EPC = 0.0128 mg/kg)	SD563 (0.106 mg/kg)	Concentrations of PFOS and PFHxS in SD539 and PFOS and PFOA in SD563 exceeded the adopted EPCs (both located at the Singleton STP) during the monitoring period. Concentrations of PFOS in SD080 (located north of the base boundary) continued exceeded the EPC, however, were noted to be within the historical range for that location. Concentrations of PFAS were below the adopted EPCs in the remaining off-base sediment samples analysed during this period
		PFOA (EPC = 0.0009 mg/kg)	SD563 (0.0029 mg/kg)	
		PFHxS (EPC = 0.0017 mg/kg)	SD539 (0.0029 mg/kg)	

[10] Applicable to off-base monitoring locations and property specific locations. EPCs application defined by the HHERA (AECOM, 2021).

Trigger Type	Matrix	Analyte	Triggers in 2024-2025 Monitoring Period Location (Concentration)	Discussion
Exceedance of ecological EPC[11]	Doughboy Hollow Creek Catchment[12]			
	Surface water			No exceedances of ecological EPC were reported in surface water samples collected from the Doughboy Hollow Creek Catchment during the monitoring period
	Sediment			Concentrations of PFOA were reported above the ecological EPC in sample SD539, located at the Singleton Council STP discharge point into Doughboy Hollow Creek during the monitoring period. The concentrations were noted to be within the historical range of PFOA concentrations reported at this location, and do not constitute a change to the CSM or associated risk profile. No exceedances of ecological EPC were reported in remaining sediment samples collected from the Doughboy Hollow Creek Catchment during the monitoring period
	Mudies/Emigrant Creek Catchment[13]			
	Surface water			No exceedances of ecological EPC were reported in surface water samples collected from the Mudies/Emigrant Creek Catchment during the monitoring period
	Sediment			No exceedances of ecological EPC were reported in sediment samples collected from the Mudies/Emigrant Creek Catchment during the monitoring period

[11] Applicable to off-base ecological receptors as defined by the HHERA (AECOM, 2021).
[12] Assessed against off-base north east and off-base north west locations.
[13] Assessed against Dochra Airfield locations

9.0 Conceptual Site Model

The PMAP (Defence, 2021) provides the CSM summarising the linkages between PFAS sources, exposure pathways and receptors.

The OMP sampling events over the monitoring period have provided additional data to further understand the changing conditions of the PFAS concentrations in groundwater, surface water and sediment.

Overall, data presented in this report does not change the understanding of the CSM, as presented in Section 4 of the PMAP (Defence, 2021b). Future monitoring will continue to contribute to an evaluation of any potential changes to the understanding of the CSM.

Although there is no current change to the understanding of the CSM, the increased PFAS concentrations observed at MW188S during this monitoring period have the potential to change the CSM in the future if these concentrations continue to increase.

The CSM has the potential to change regarding the known extent of PFAS in groundwater based on the proposed adoption of the lower laboratory LOR for PFOS in future monitoring events. This will be discussed and evaluated during the next OMR.

Overall, concentrations of PFAS within groundwater, surface water and sediment remain consistent with previous monitoring in the majority of locations sampled, with new maximum concentrations limited in magnitude compared with historical observations.

10.0 Risk Profile Review

10.1 Risk Assessment Summary

The HHERA (AECOM, 2021) assessed the potential off-base human health and environmental risks resulting from exposure to base derived PFAS in soil, sediment, groundwater and / or surface water.

The data collected during this OMP monitoring period (July 2024 to June 2025) indicates that the risk profile for human health and ecological receptors at the base and surrounding area remains generally unchanged since the publication of the Human Health and Ecological Risk Assessment (HHERA) (AECOM, 2021). This is based on the following assessment of OMP data, particularly with reference to the OMP trigger levels assessment outlined in **Section 8.0**.

10.2 Human Health Risk Assessment

The exposure pathways where potential risks were identified as elevated in the HHERA (AECOM, 2021) were as follows:

- Ingestion of home-grown red meat from sheep of cattle that have consumed water year-round containing detectable PFAS, or grazed in areas irrigated or flooded by water containing detectable PFAS
- Ingestion of home-grown milk from cows that have consumed water year-round containing detectable PFAS, or grazed in areas irrigated or flooded by water containing detectable PFAS
- Cumulative ingestion of home-grown red meat from sheep or cattle, of home-grown milk from sheep and of eggs from home-grown backyard poultry that have consumed water year-round containing detectable PFAS or grazed in areas irrigated or flooded by water containing detectable PFAS.

The current data set collected under the OMP does not indicate that there is a change in the identified HHRA exposure pathways described above.

10.3 Ecological Risk Assessment

The exposure pathways where potential risks were identified as elevated in the HHERA (AECOM, 2021) were as follows

- Ingestion of PFAS impacted soil or surface water by ecological receptors.
- Ingestion of organisms that have been exposed to PFAS where bioaccumulation is occurring, including aquatic and terrestrial organisms.

The current data set collected under the OMP does not indicate that there is a change in the identified exposure pathways described above.

11.0 Conclusions

Groundwater, surface water and sediment sampling was completed as part of the OMP between July 2024 and June 2025. The following conclusions are based on the data collected during the monitoring period.

Overall, the concentrations of PFAS in groundwater, surface water and sediments were generally similar to previous results. There are some temporal variances, including increased concentrations, first time exceedances, and a new increasing concentration trend, however these results are not considered to be significant in the context of the CSM and the associated risk profile of the base and surrounds.

Based on the data, AECOM considers that the conclusions made in the HHERA (AECOM, 2021), and subsequent technical memos (AECOM, 2025d and 2025e) still apply and that the CSM and interpretive analysis supports the known risk profile as presented in the PMAP (Defence, 2021b).

Following a review of the data collected during the monitoring period, there has been no significant changes to the understanding of risks associated with PFAS at the base and surrounding areas, the spatial distribution of PFAS and the need for monitoring of additional media.

There are no increasing or decreasing trends identified to date that have a material impact upon the CSM and associated risk profile. It is noted that some recent increases in PFAS concentrations in groundwater will continue to be monitored to determine whether they constitute a change to the CSM and associated risk profile. Additionally, at some locations more data points are required for trend analysis assessment, however in these instances the trend assessment relied on CSM and temporal trend graphs, which include short term rainfall data.

12.0 References

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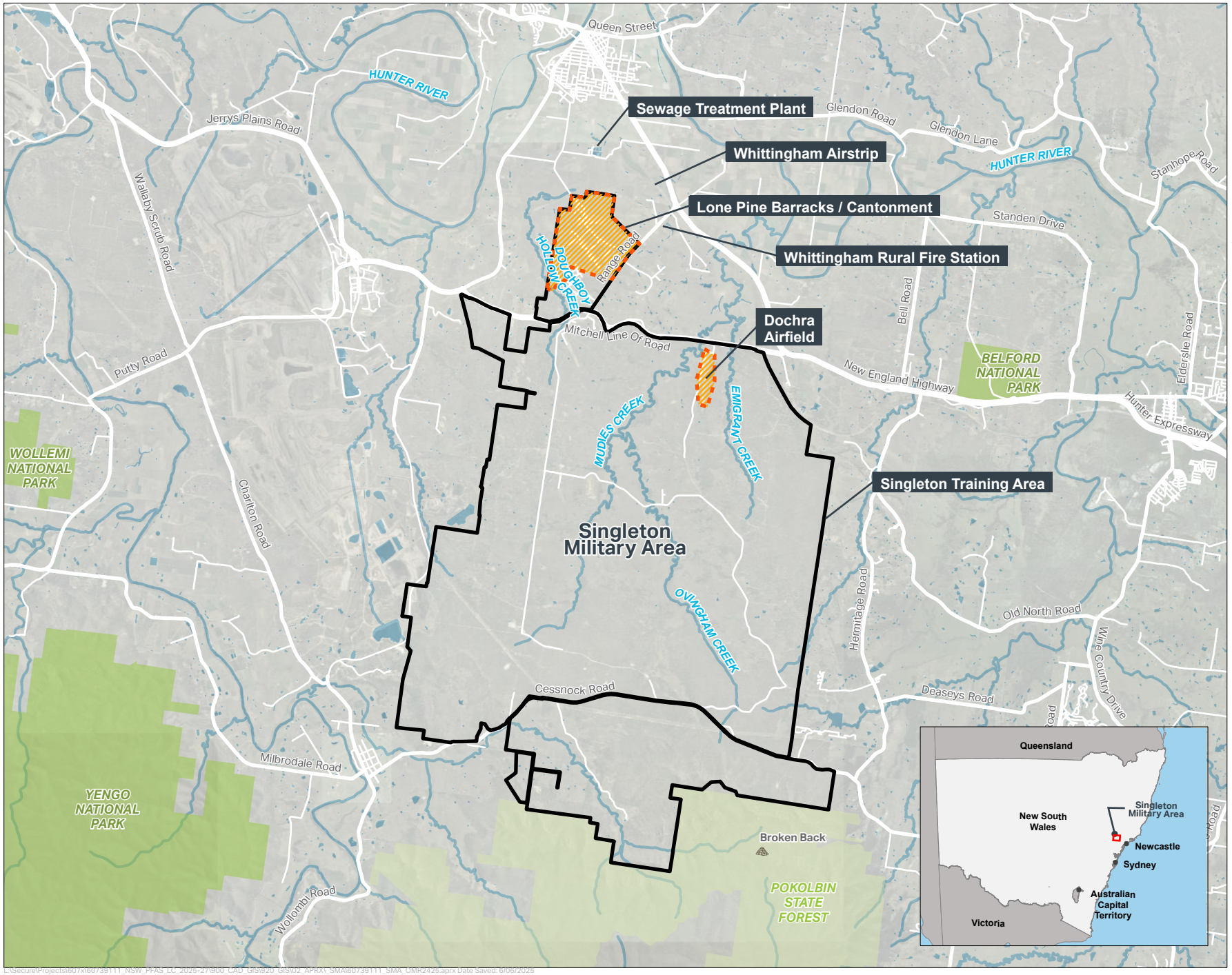
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Appendix A

Figures



AECOM

N

0 1.5 3 km

Legend

- Site Boundary
- On-site Monitoring Area
- State Forest
- NPWS Reserve
- Waterbody
- Watercourse

FIGURE F1:
SITE LOCATION

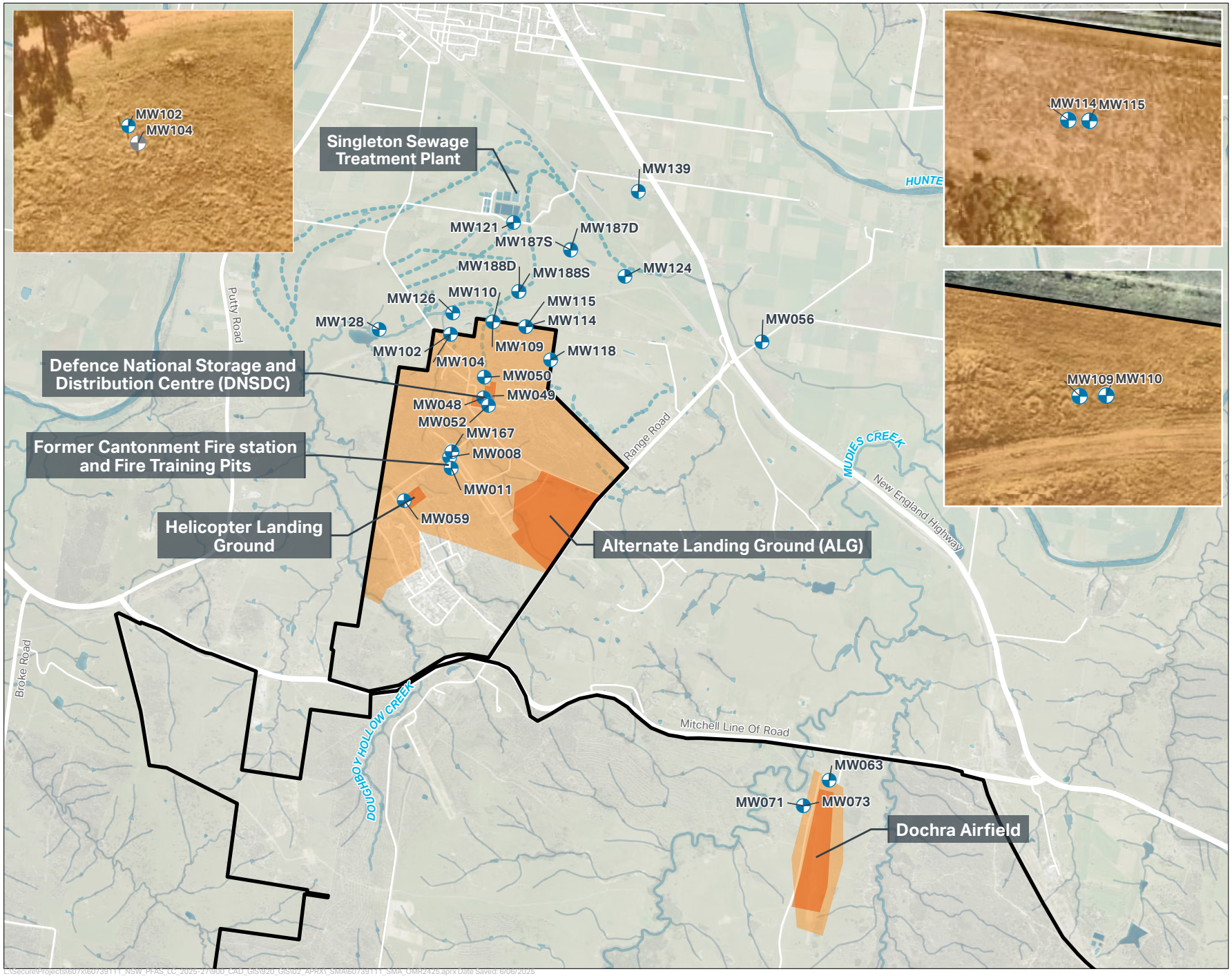
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PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
July 2024 to June 2025
Singleton Military Area (0356)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60739111

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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

FIGURE F2:
GROUNDWATER SAMPLING LOCATIONS

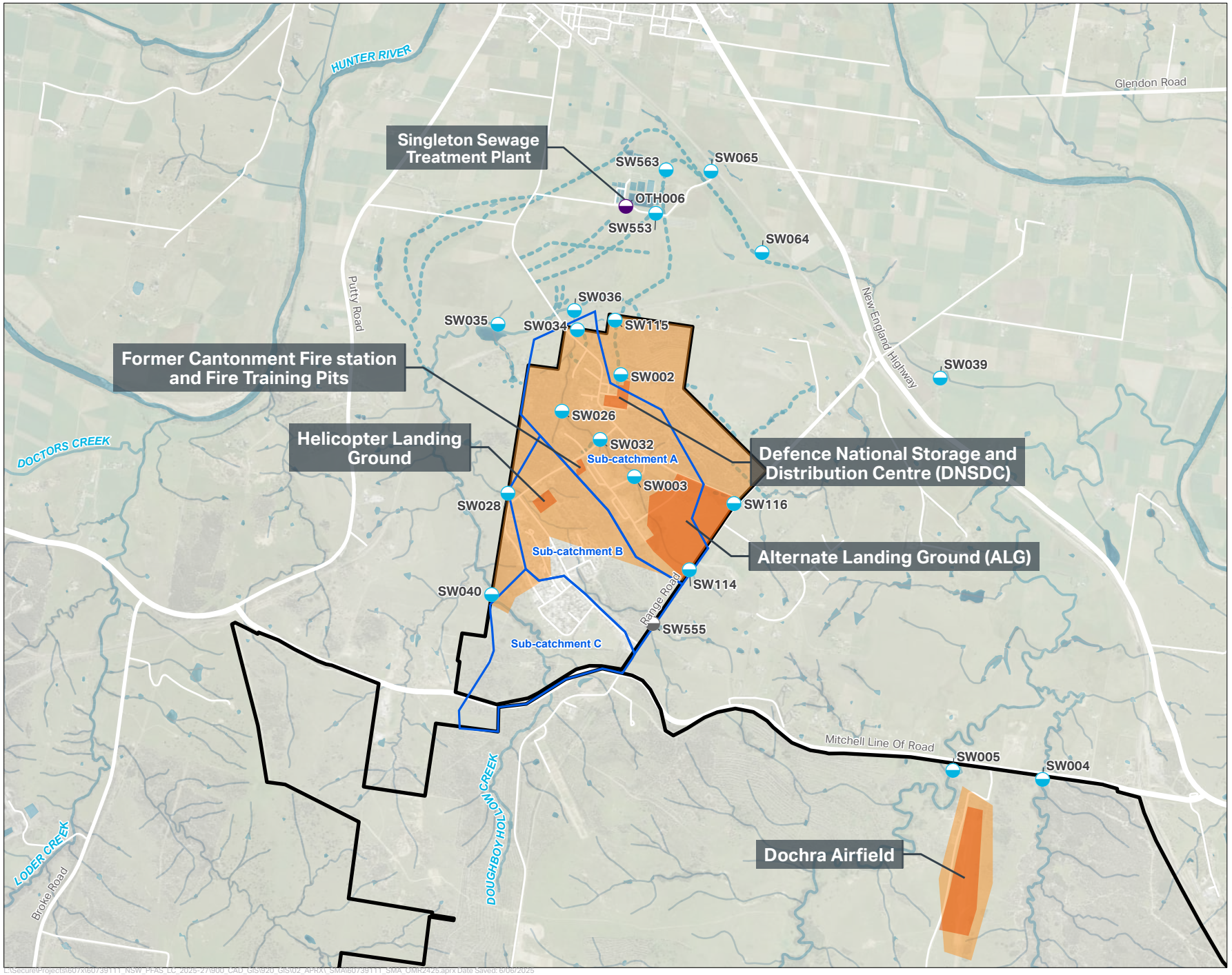
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PFAS OMP
REPORT NAME:
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July 2024 to June 2025
Singleton Military Area (0356)
CLIENT NAME:
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Catchment Boundaries
- Watercourse
- Drainage Line
- Undefined Drainage Lines
- Surface Water Sampling Location (not sampled)
- Surface Water Sampling Location (sampled)
- Wastewater Sampling Location (not sampled)

FIGURE F3:
SURFACE WATER AND WASTEWATER SAMPLING LOCATIONS

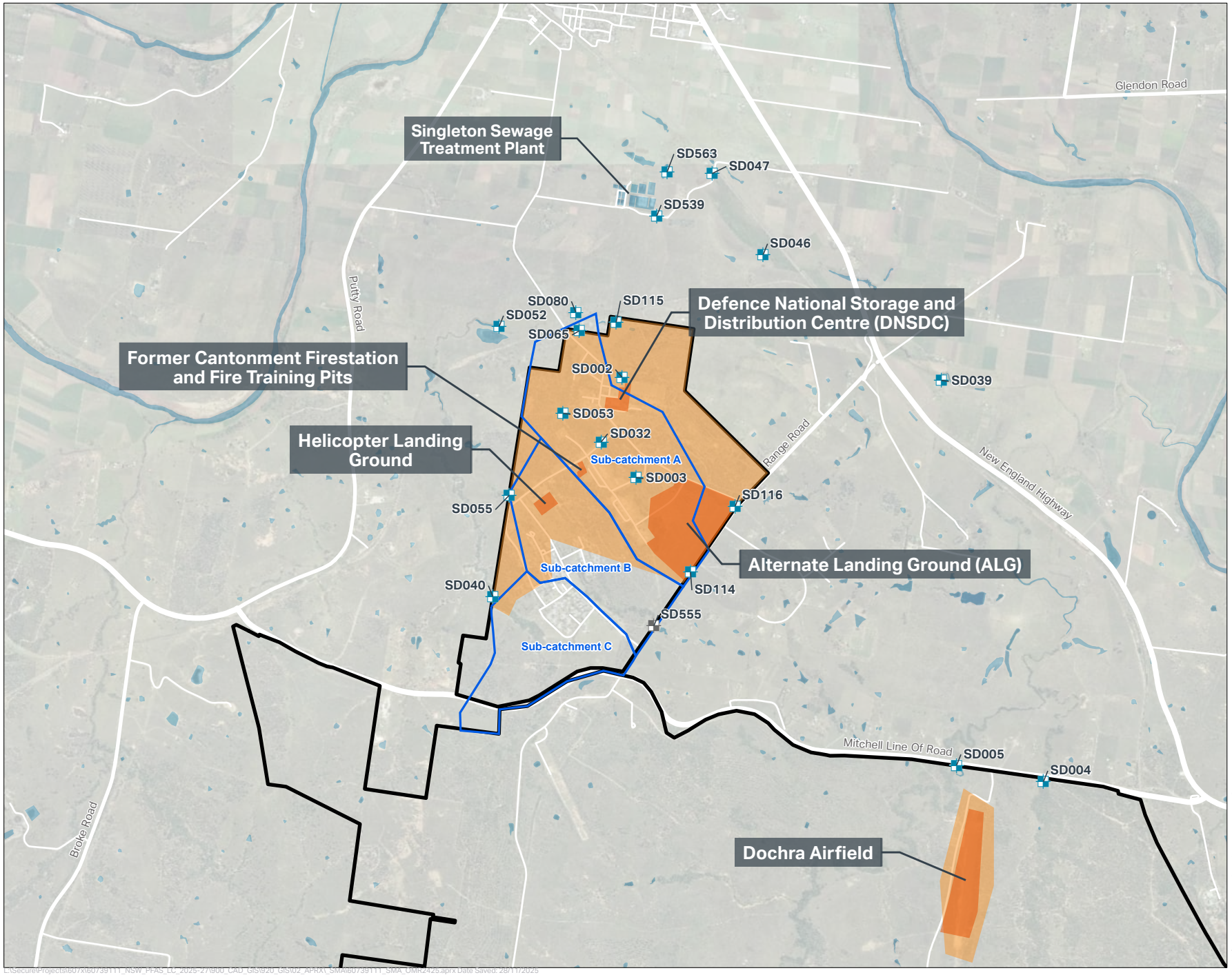
PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
July 2024 to June 2025
Singleton Military Area (0356)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60739111

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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Management Area
- PFAS Source Areas
- Catchment Boundaries

FIGURE F4:
SEDIMENT SAMPLING LOCATIONS

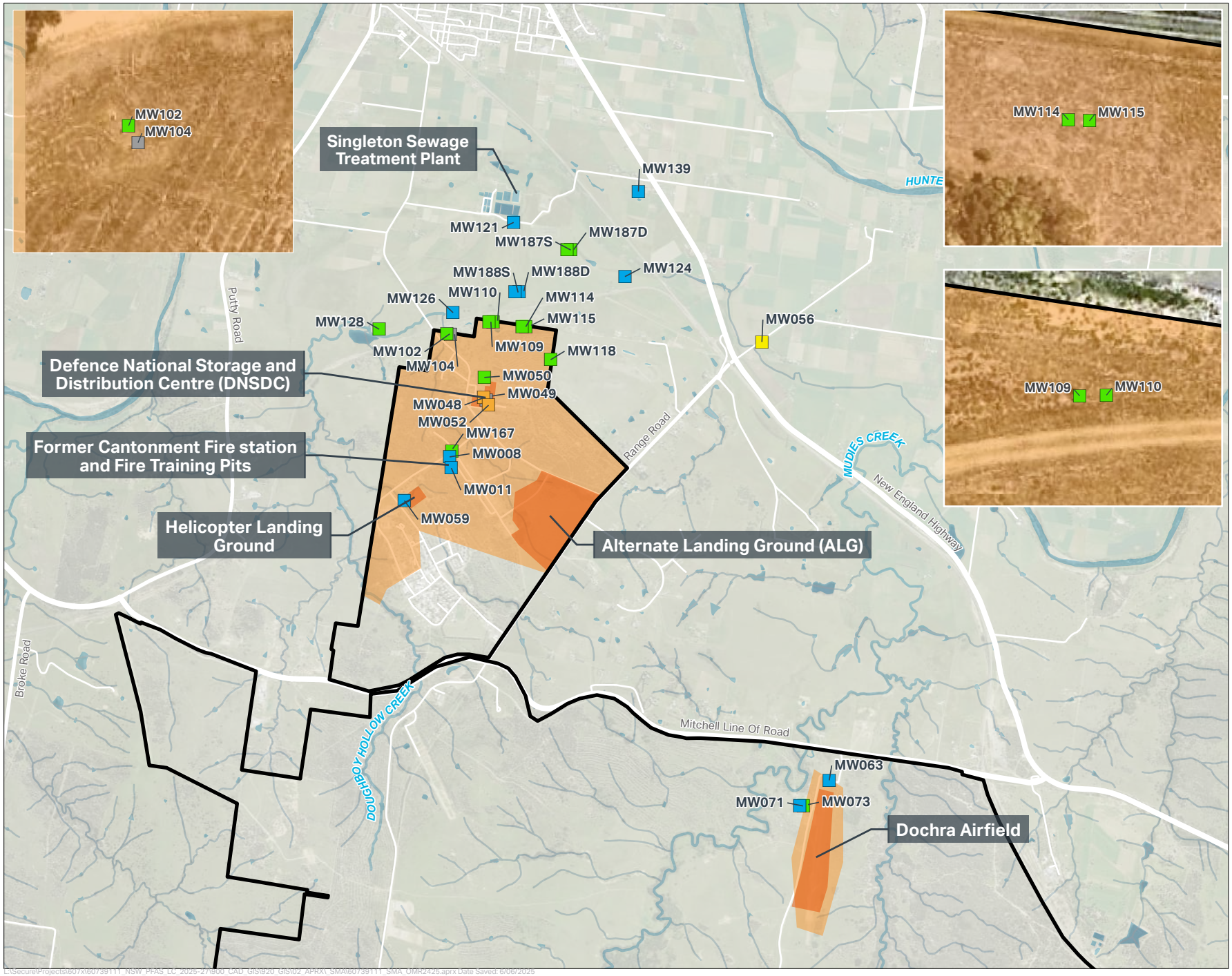
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Drainage line

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F5:
GROUNDWATER ANALYTICAL RESULTS – PFOS+PFHXS
JULY 2024

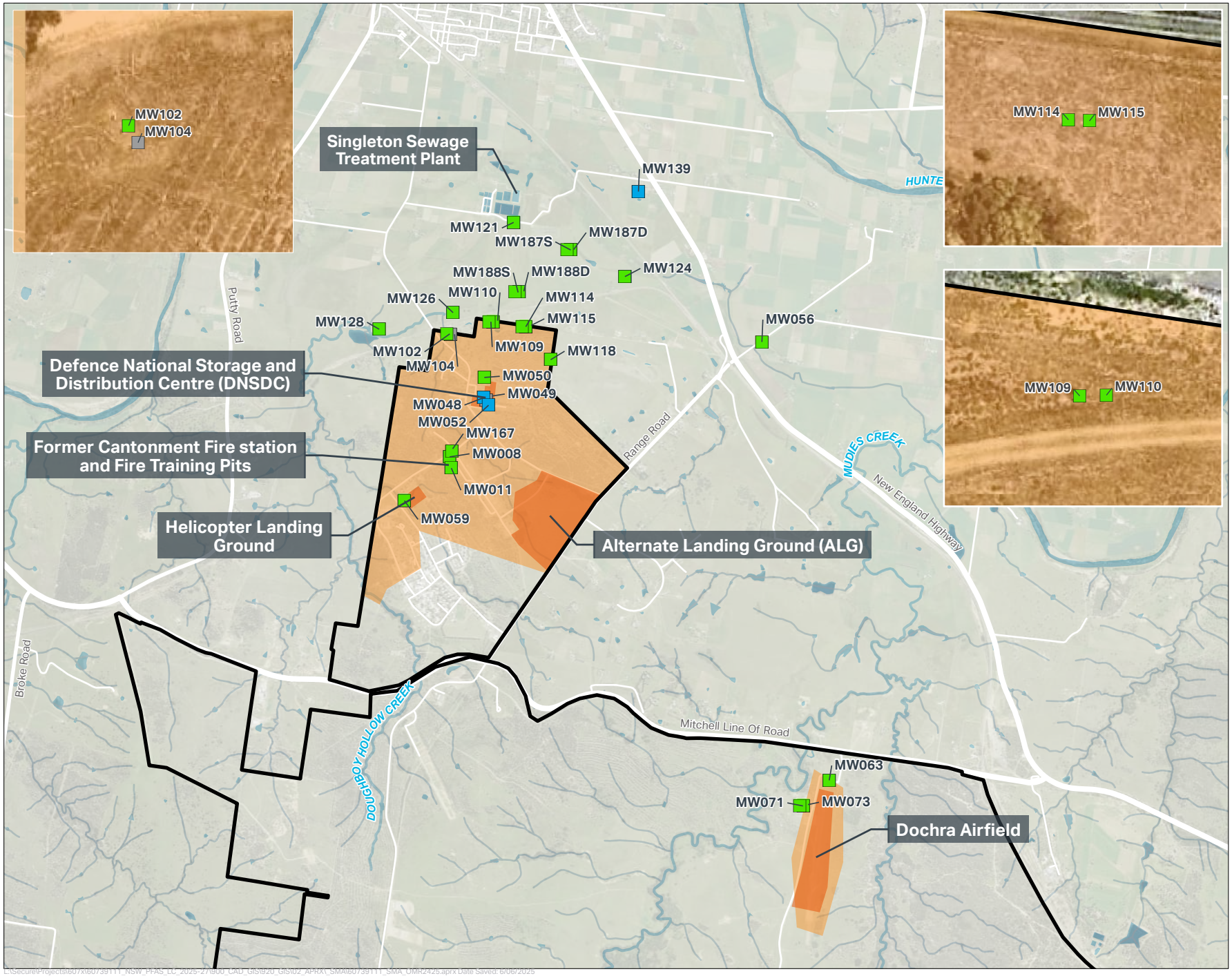
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Drainage line

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F6:
GROUNDWATER ANALYTICAL RESULTS PFOA – JULY 2024

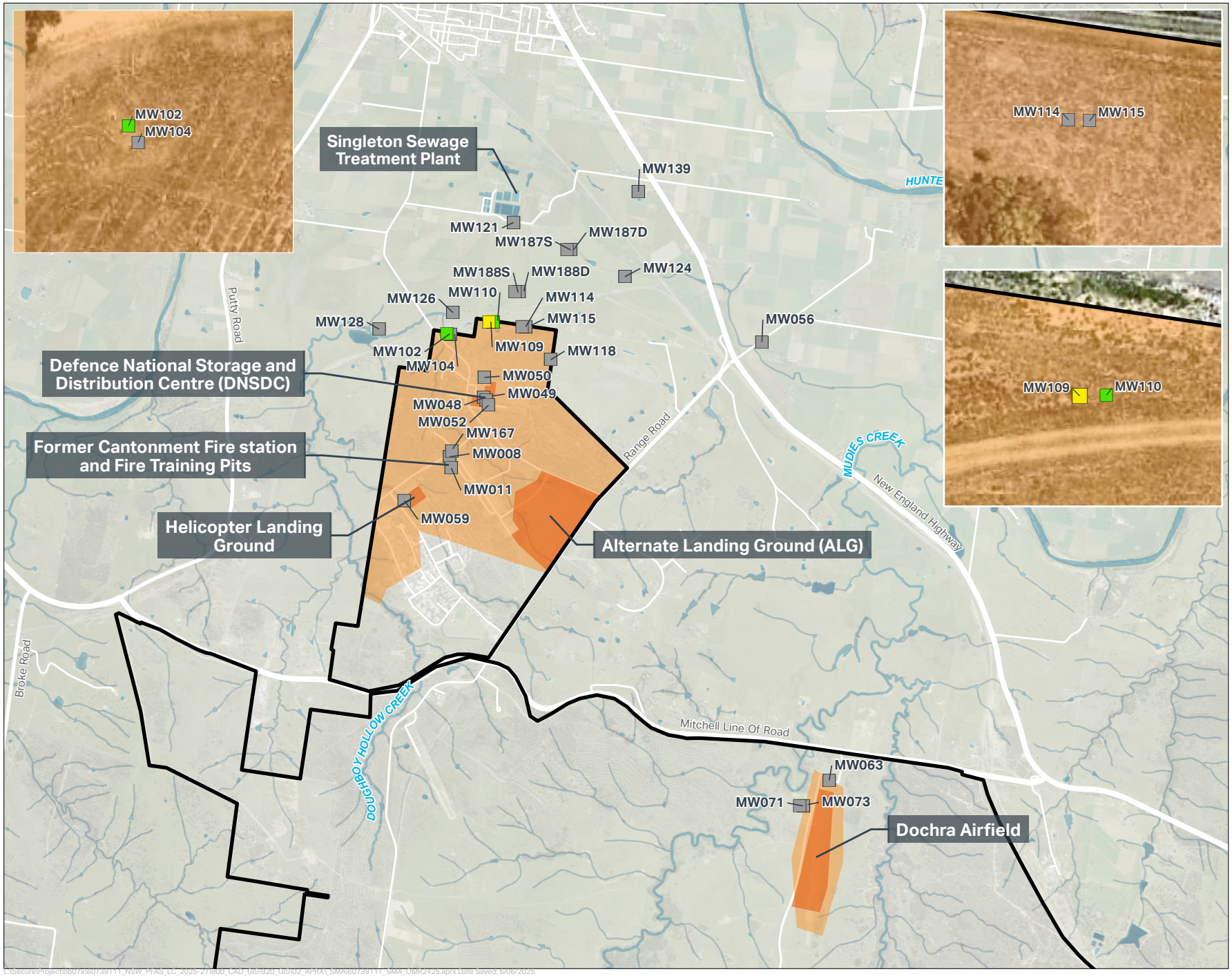
PROJECT NAME:
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Drainage line

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F7:
GROUNDWATER ANALYTICAL RESULTS – PFOS+PFHXS FEBRUARY 2025

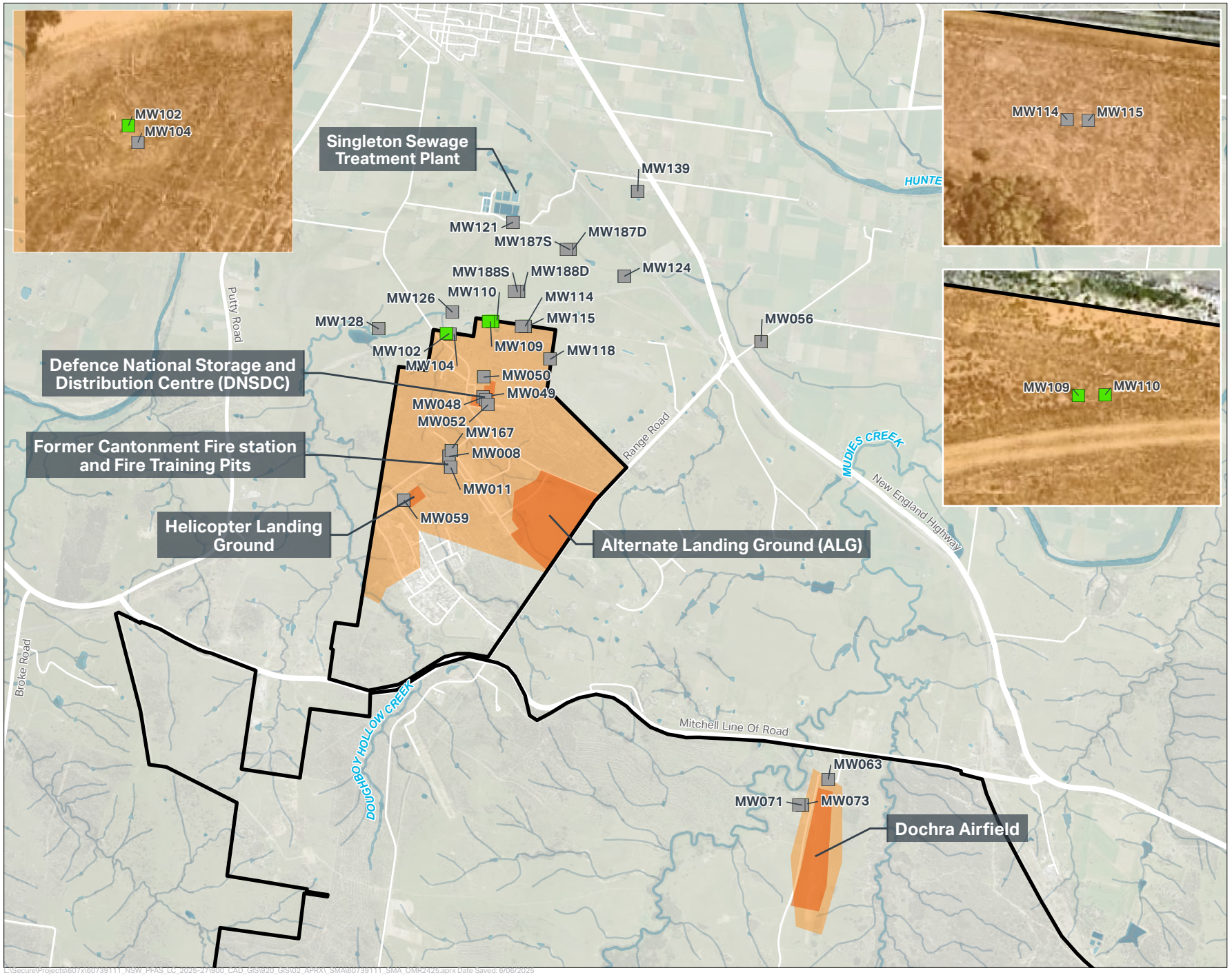
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Drainage line

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F8:
GROUNDWATER ANALYTICAL RESULTS PFOA – FEBRUARY 2025

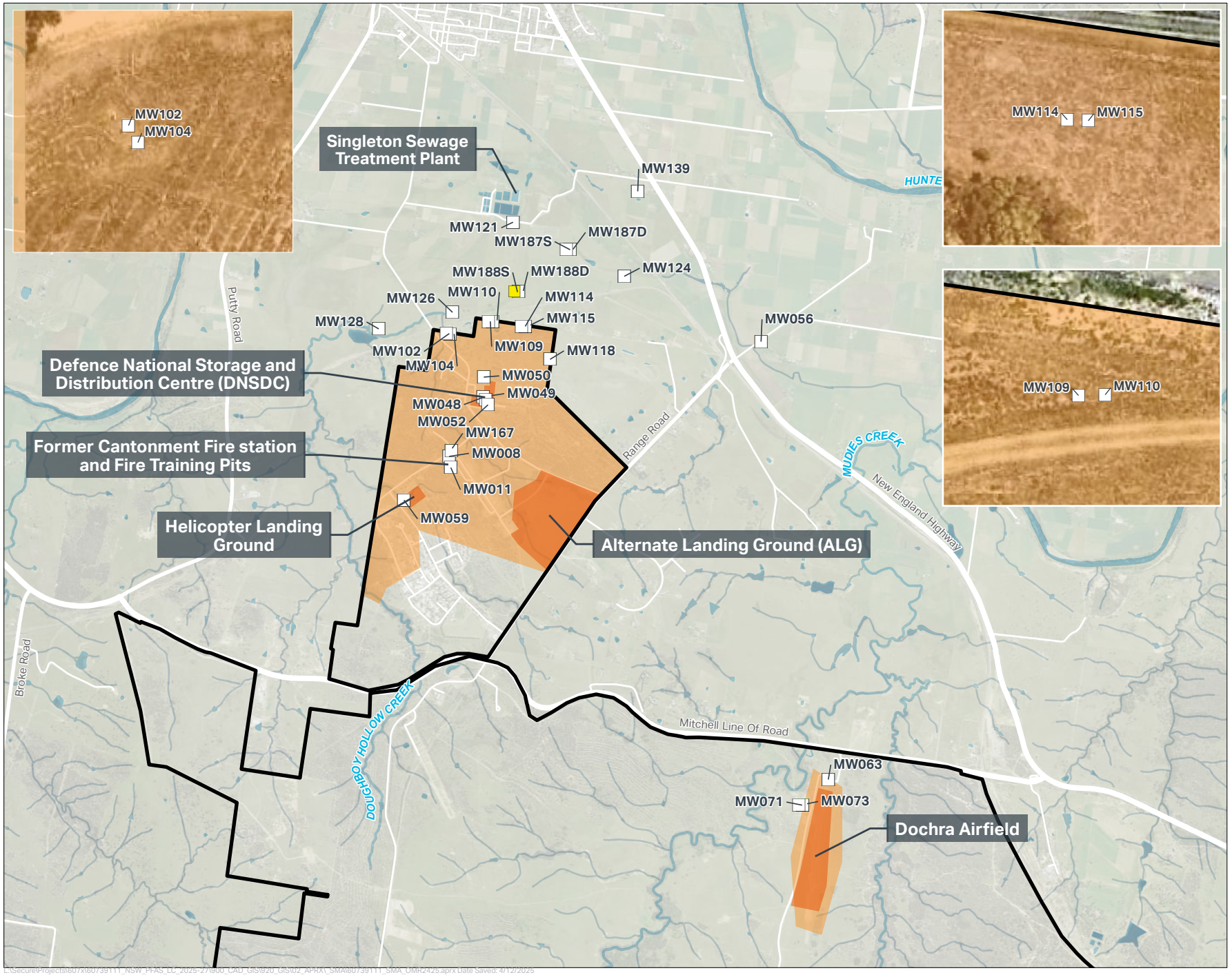
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Drainage line
- First-time Detection of PFOS, PFOS +PFHxS and / or PFOA
- New Exceedance of Human Health and /or Ecological Screening Criteria for PFOS, PFOS +PFHxS and /or PFOA
- New Significant Maximum of PFOS, PFOS+PFHxS and/or PFOA
- No Deviations in Monitoring Period

FIGURE F9:
GROUNDWATER ANALYTICAL DEVIATIONS

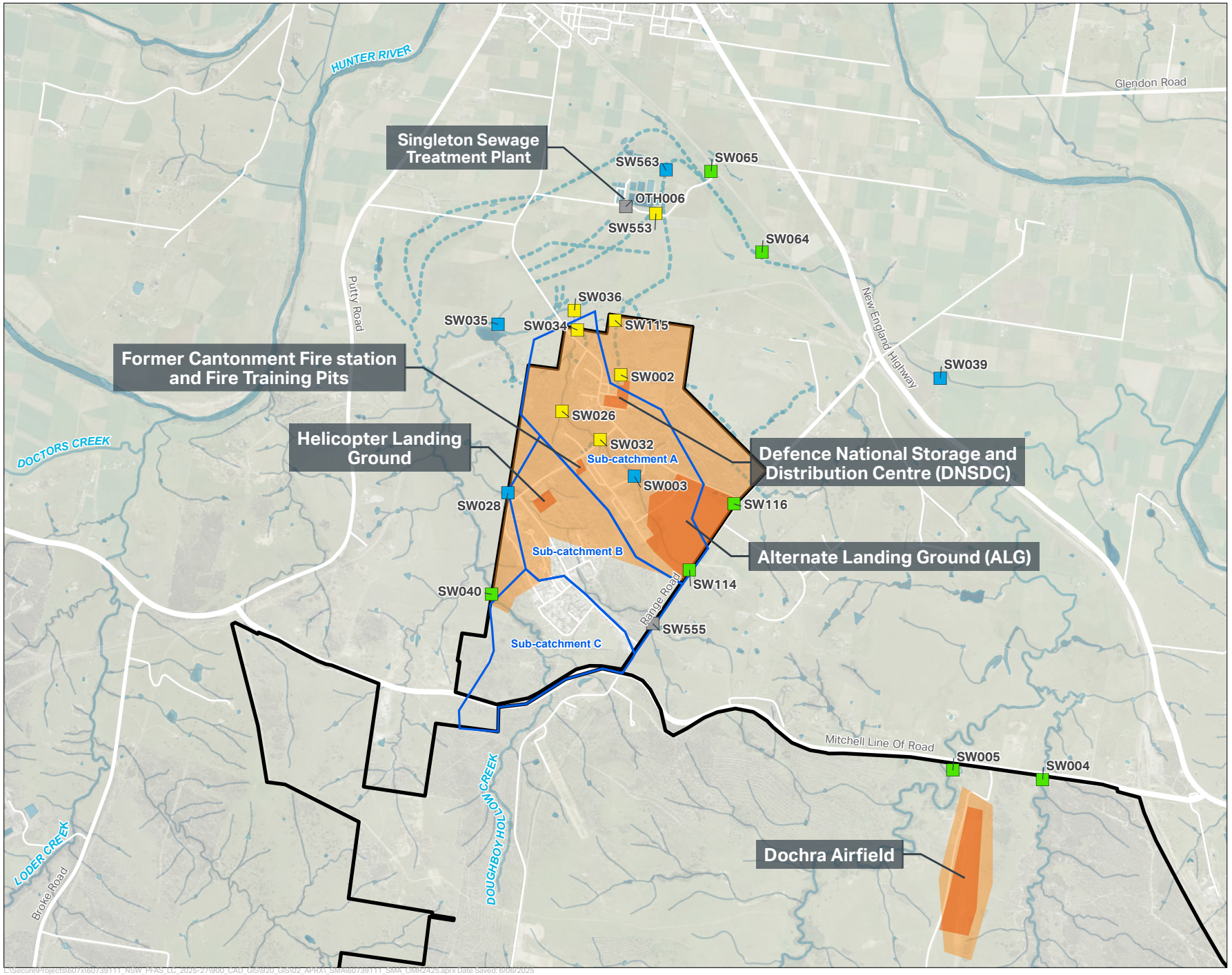
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- Undefined Drainage Lines

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F10:
SURFACE WATER AND WASTEWATER ANALYTICAL RESULTS – PFOS+PFHXS – JULY 2024

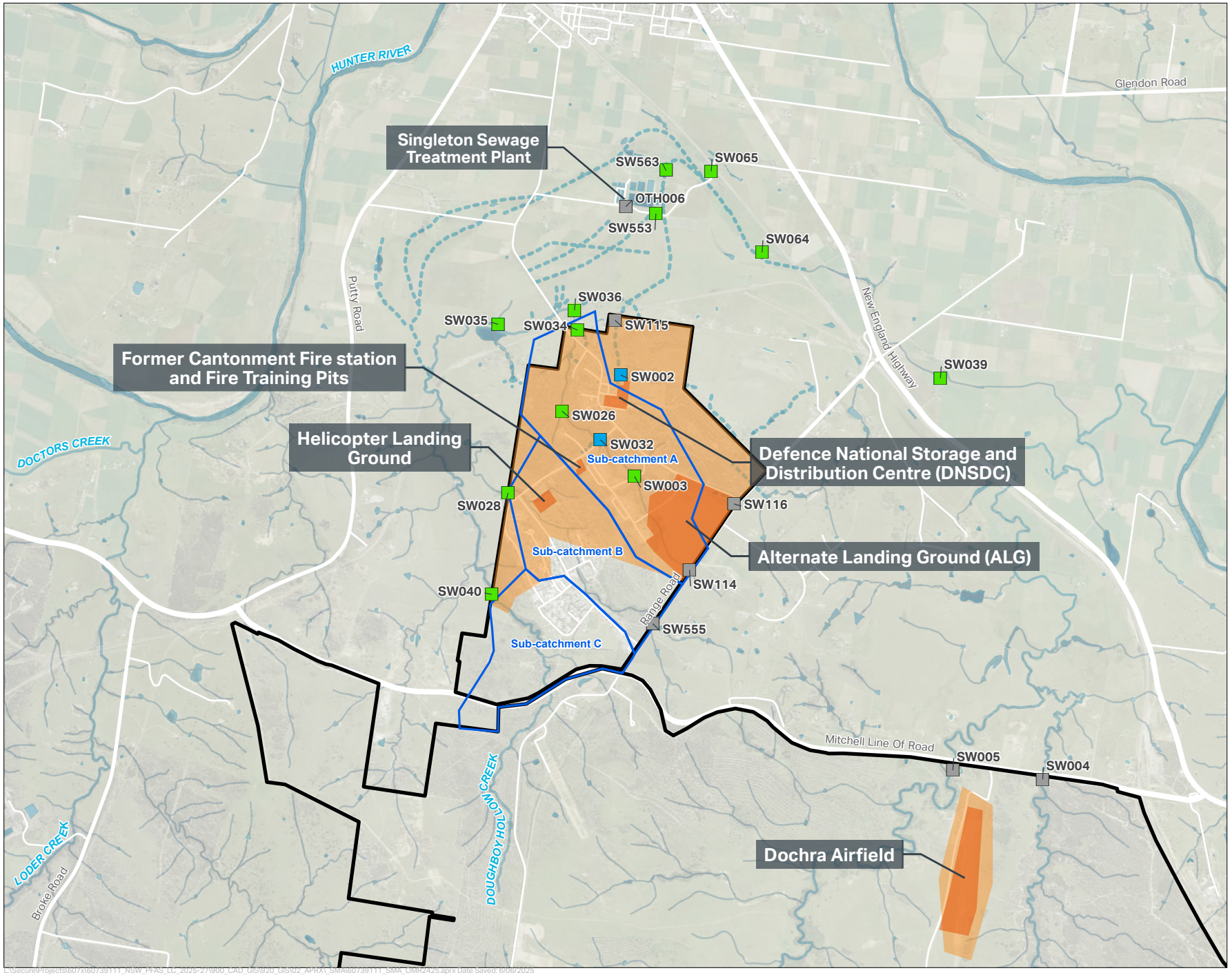
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- Undefined Drainage Lines

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F11:
SURFACE WATER AND WASTEWATER ANALYTICAL RESULTS – PFOA – JULY 2024

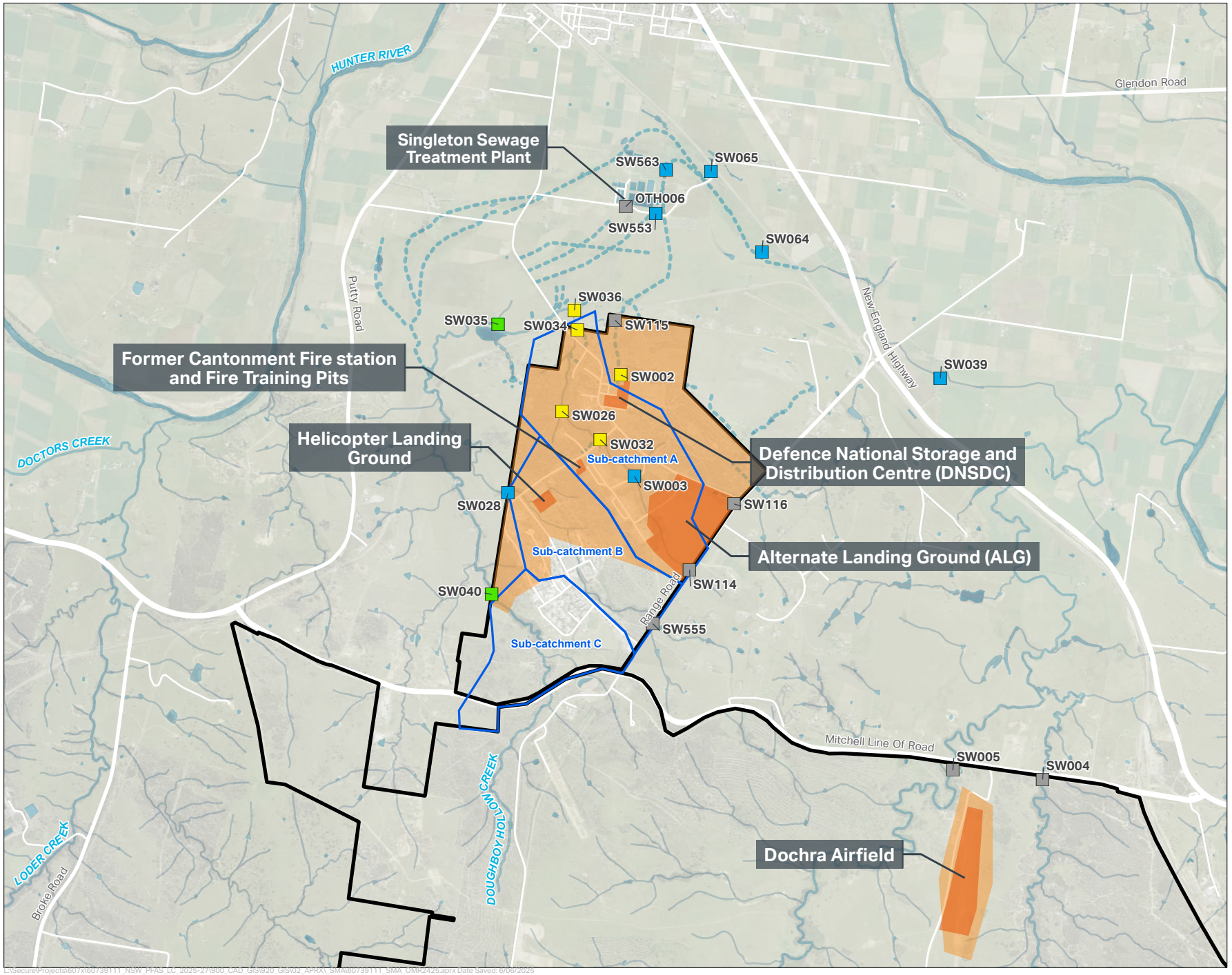
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- Undefined Drainage Lines

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F12:
SURFACE WATER AND WASTEWATER ANALYTICAL RESULTS – PFOS+PFHXS – FEBRUARY 2025

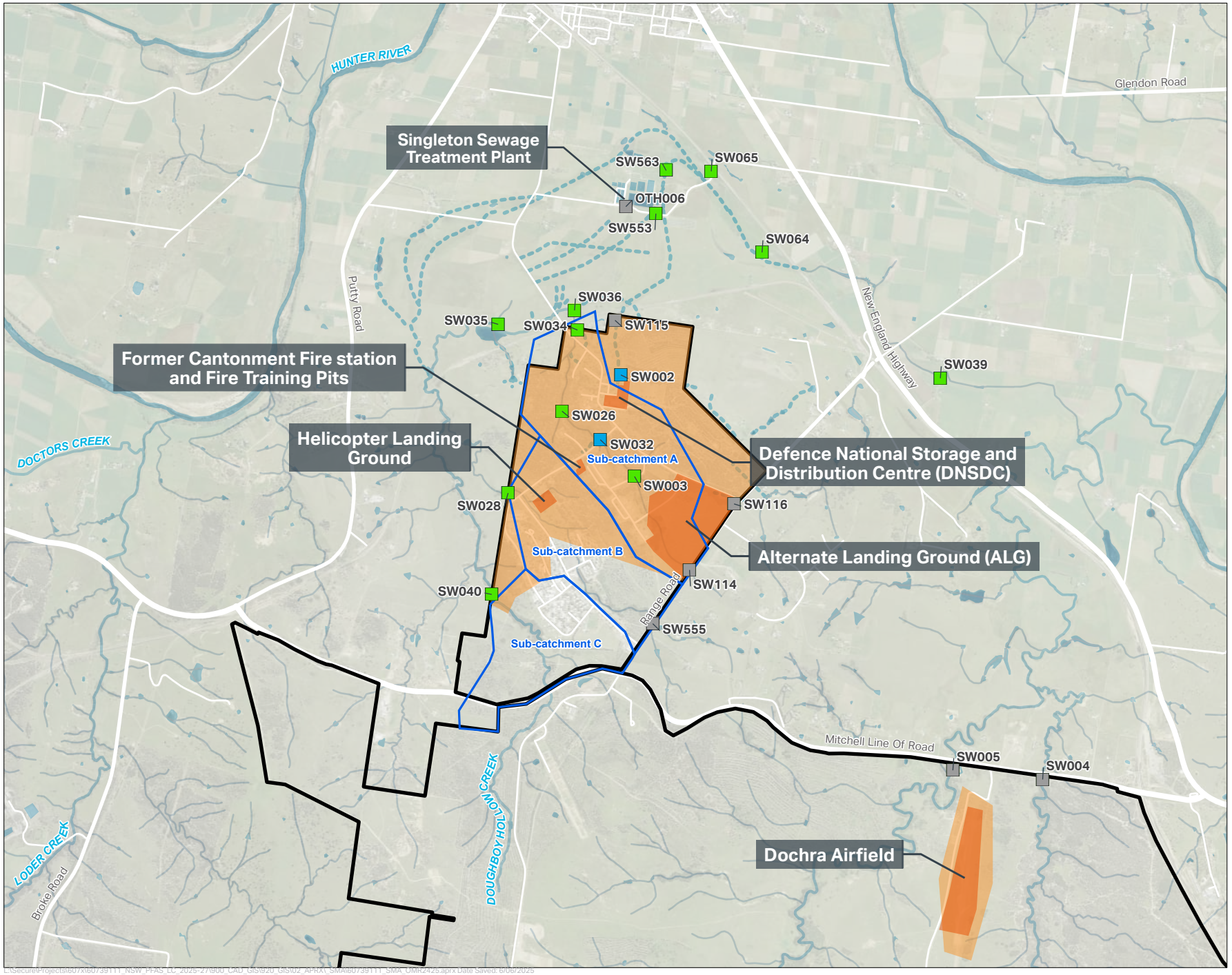
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- Undefined Drainage Lines

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F13:
SURFACE WATER AND WASTEWATER ANALYTICAL RESULTS – PFOA – FEBRUARY 2025

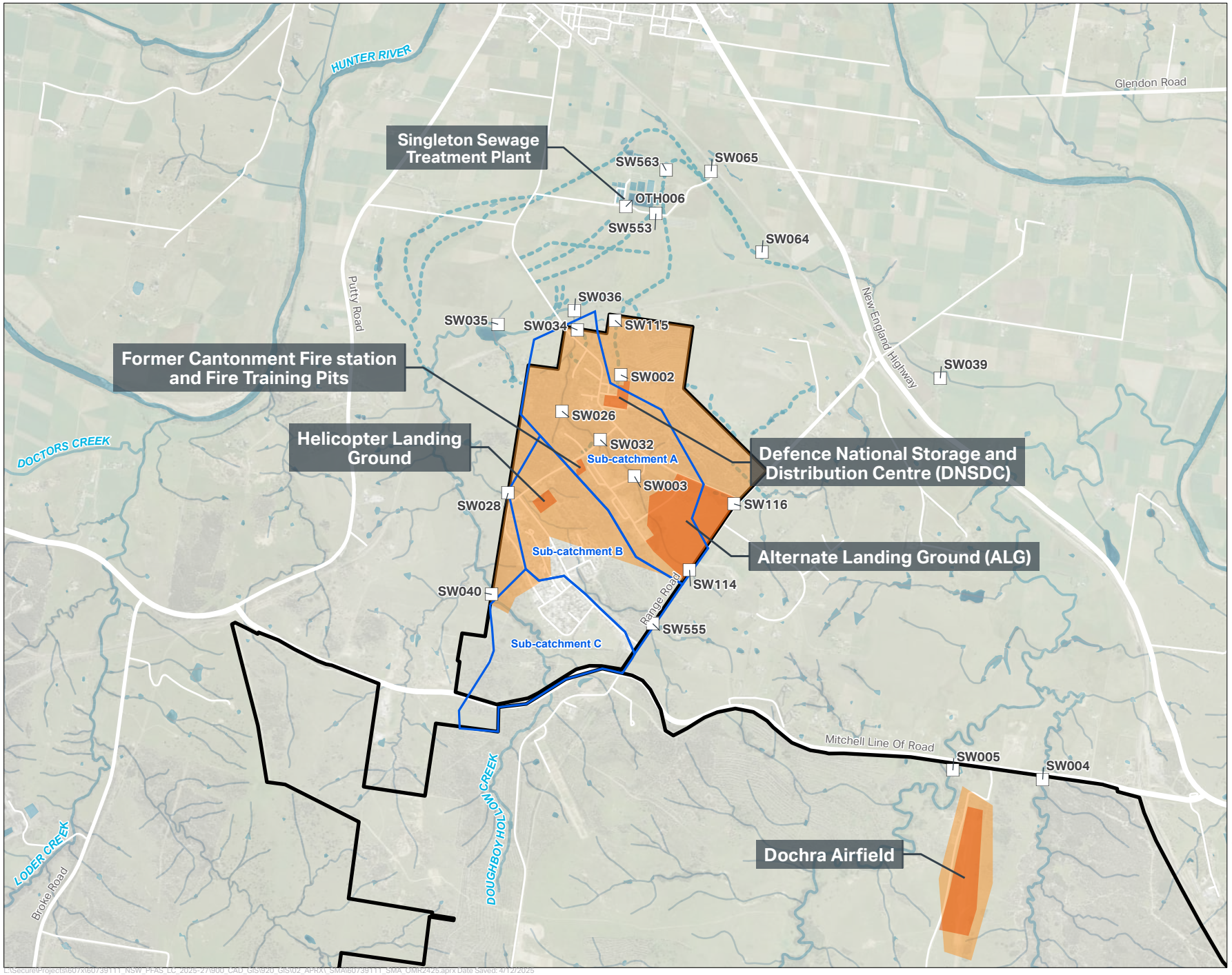
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Catchment Boundaries
- Watercourse
- Drainage Line
- Undefined Drainage Lines
- First-time Detection of PFOS, PFOS +PFHxS and /or PFOA
- New Exceedance of Human Health and /or Ecological Screening Criteria for PFOS, PFOS +PFHxS and /or PFOA
- New Significant Maximum of PFOS, PFOS+PFHxS and/or PFOA
- No Deviations in Monitoring Period

FIGURE F14:
SURFACE WATER AND WASTEWATER ANALYTICAL RESULT DEVIATIONS

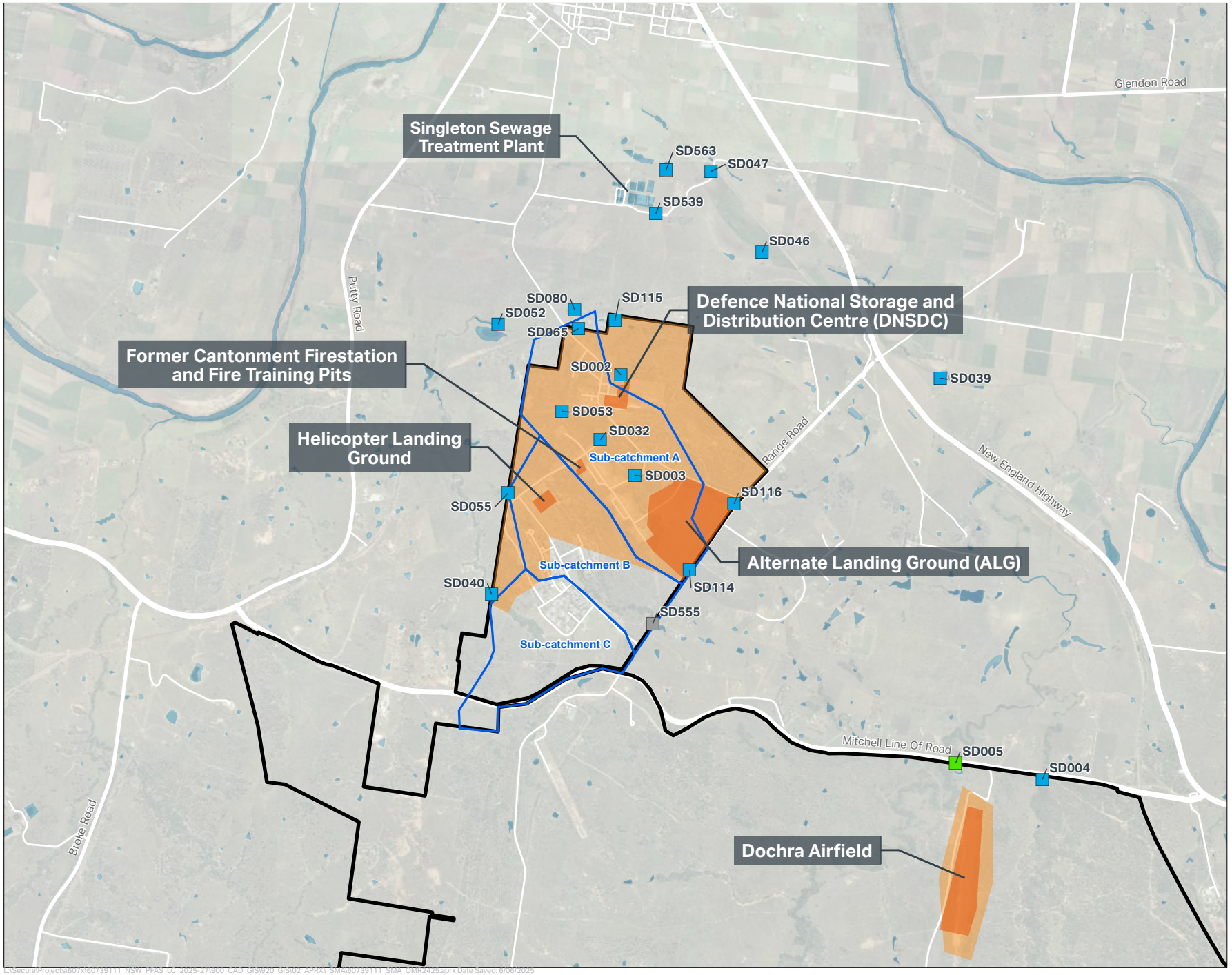
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N

0 0.5 1 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Catchment Boundaries

Sediment - PFOS + PFHxS (µg/L)

- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F15:
SEDIMENT ANALYTICAL RESULTS – PFOS+PFHXS – JULY 2024

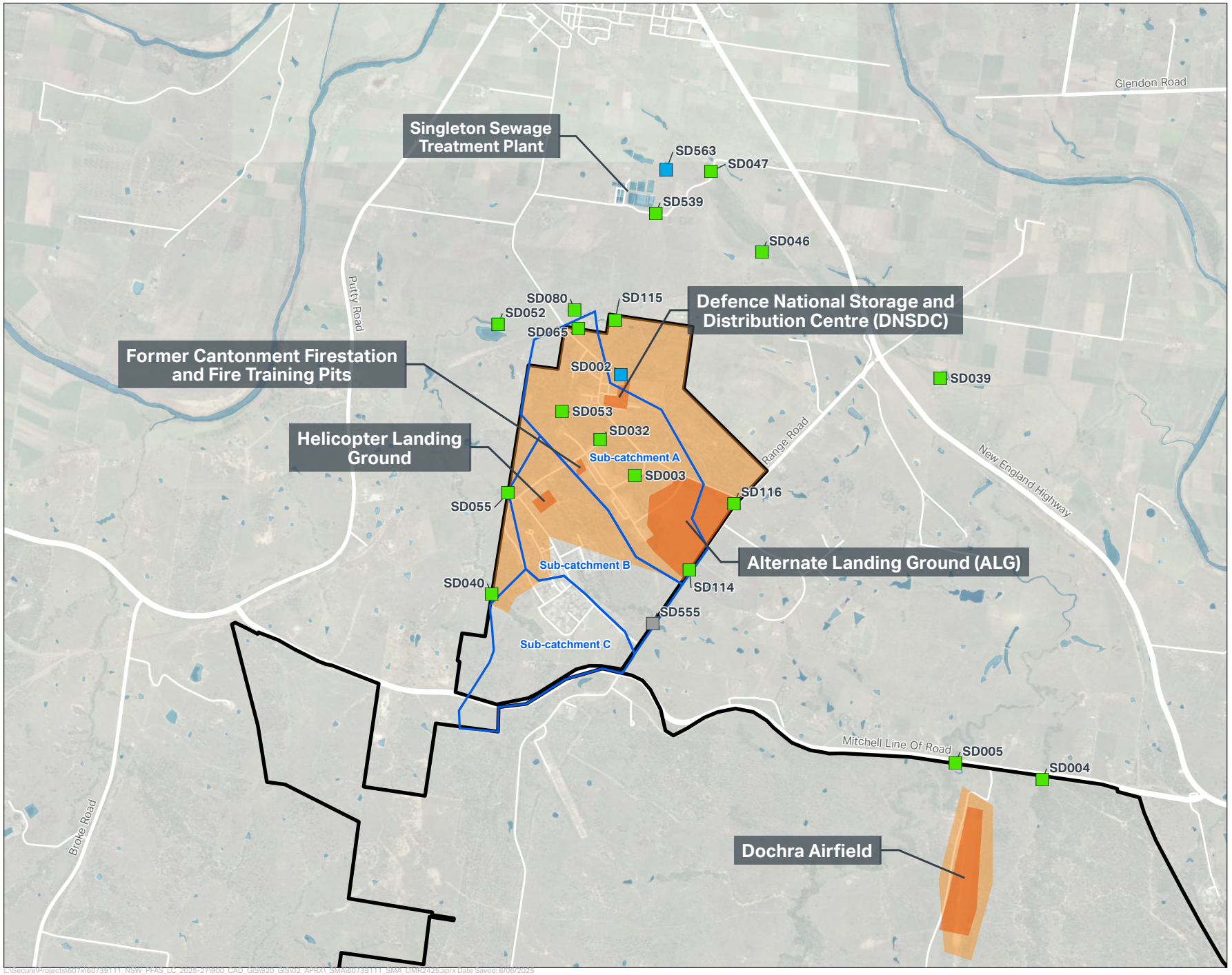
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N

0 0.5 1 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Catchment Boundaries

Sediment - PFOA (µg/L)

- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F16:
SEDIMENT ANALYTICAL RESULTS – PFOA – JULY 2024

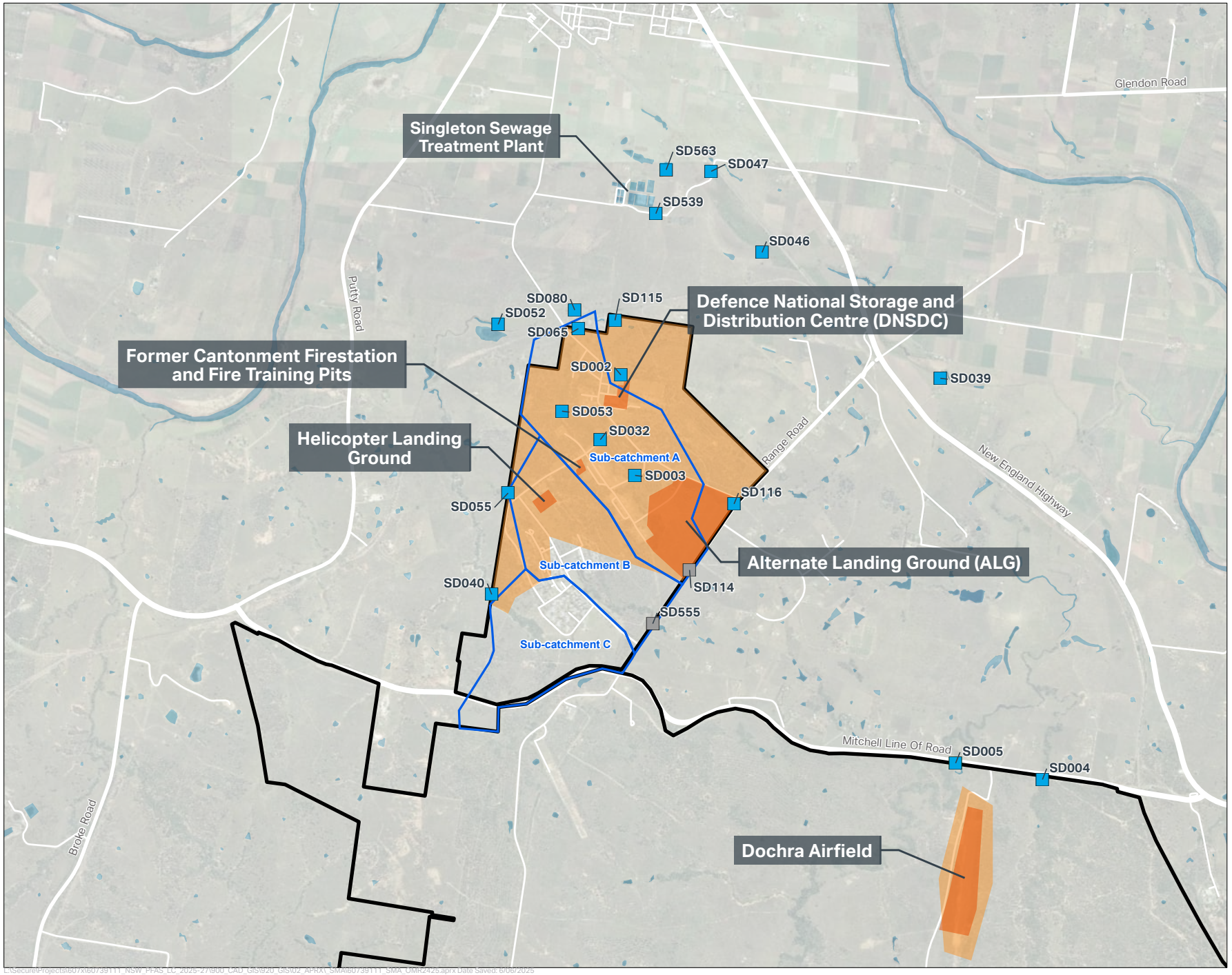
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N

0 0.5 1 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Catchment Boundaries

Sediment - PFOS + PFHxS (µg/L)

- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F17:
SEDIMENT ANALYTICAL RESULTS – PFOS+PFHXS – FEBRUARY 2025

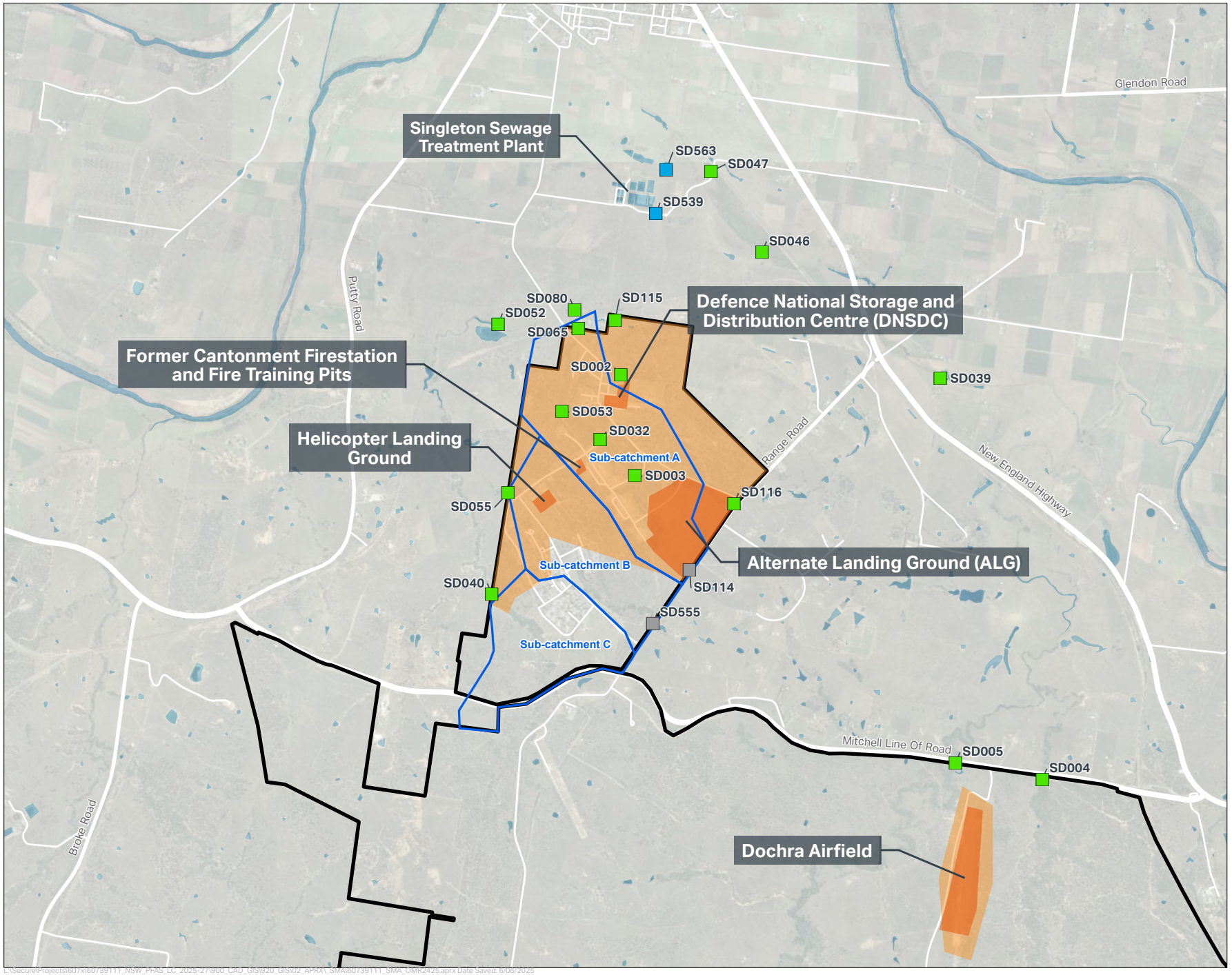
PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
July 2024 to June 2025
Singleton Military Area (0356)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60739111

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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Catchment Boundaries

Sediment - PFOA (µg/L)

- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Not Sampled / Accessed or in Scope

FIGURE F18:
SEDIMENT ANALYTICAL RESULTS – PFOA – FEBRUARY 2025

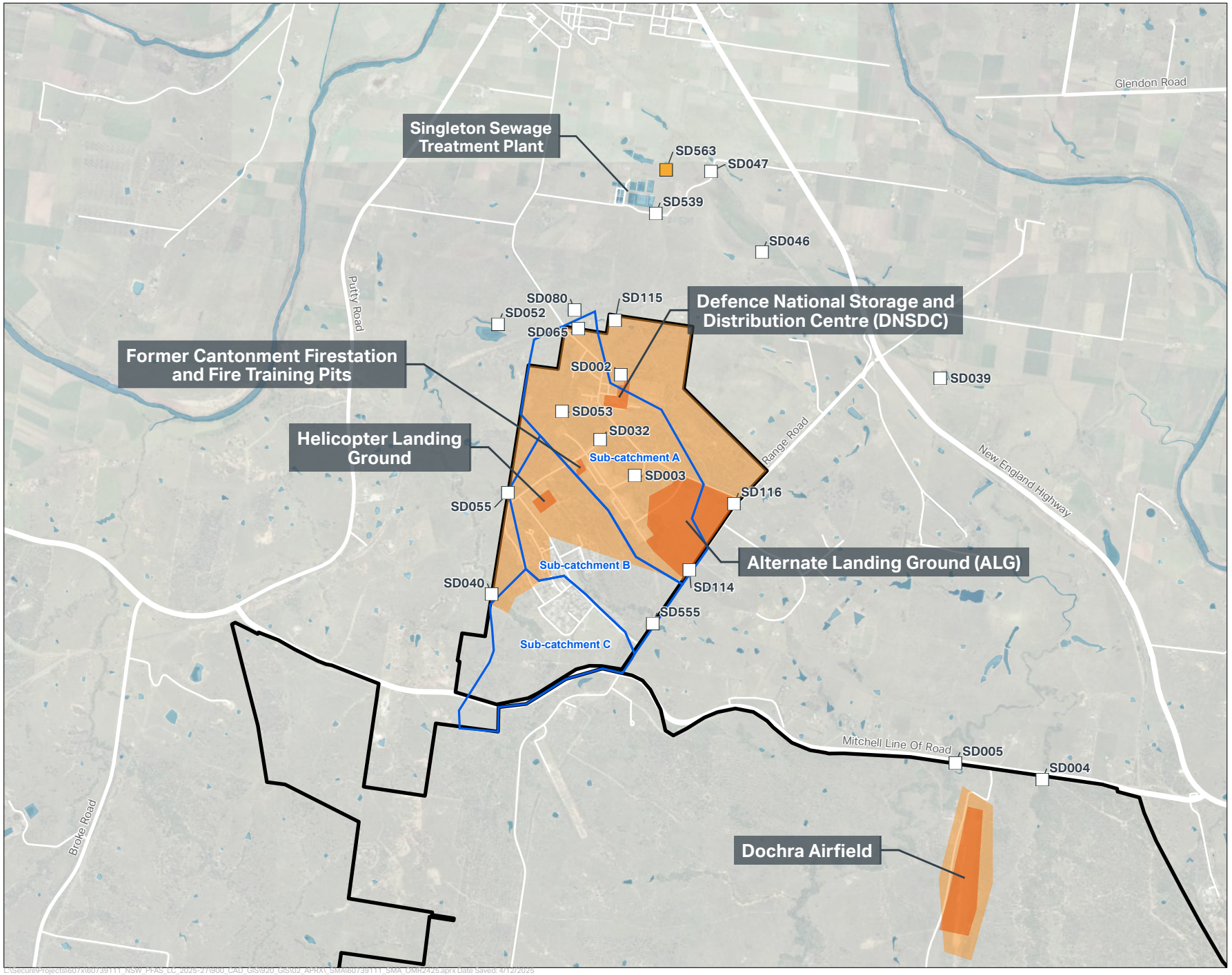
PROJECT NAME:
PFAS OMP
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July 2024 to June 2025
Singleton Military Area (0356)
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Catchment Boundaries
- First-time Detection of PFOS, PFOS +PFHxS and /or PFOA
- New Significant Maximum of PFOS, PFOS+PFHxS and/or PFOA
- No Deviations in Monitoring Period

FIGURE F19:
SEDIMENT ANALYTICAL RESULT DEVIATIONS

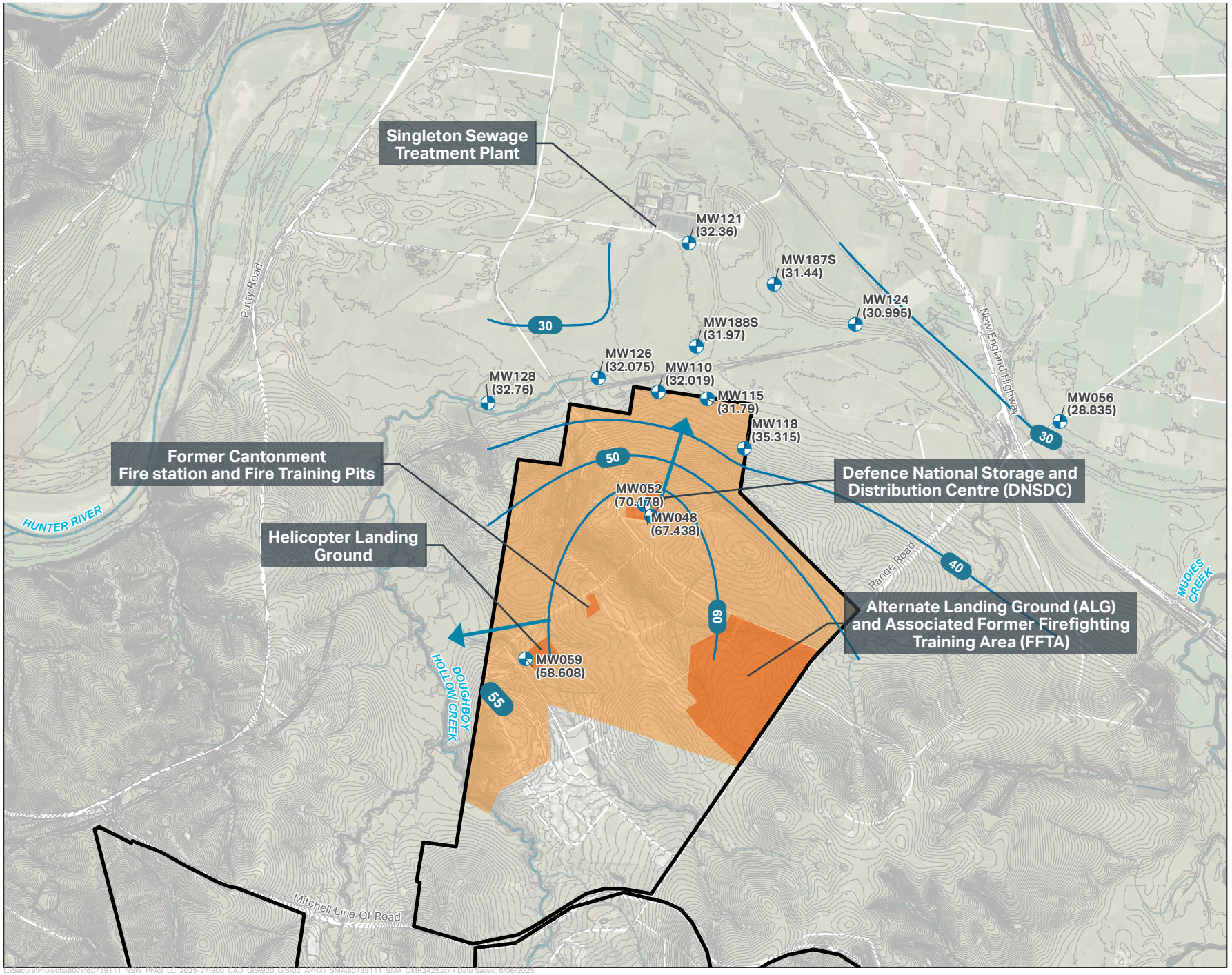
PROJECT NAME:
PFAS OMP
REPORT NAME:
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July 2024 to June 2025
Singleton Military Area (0356)
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PROJECT NUMBER:
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- 1 mAHD Topographical Contour
- Inferred Groundwater Flow Direction
- Groundwater Contours (mAHD)
- Groundwater Location (gauged)

FIGURE F20:
SHALLOW GROUNDWATER ELEVATION PLAN (JULY 2024)

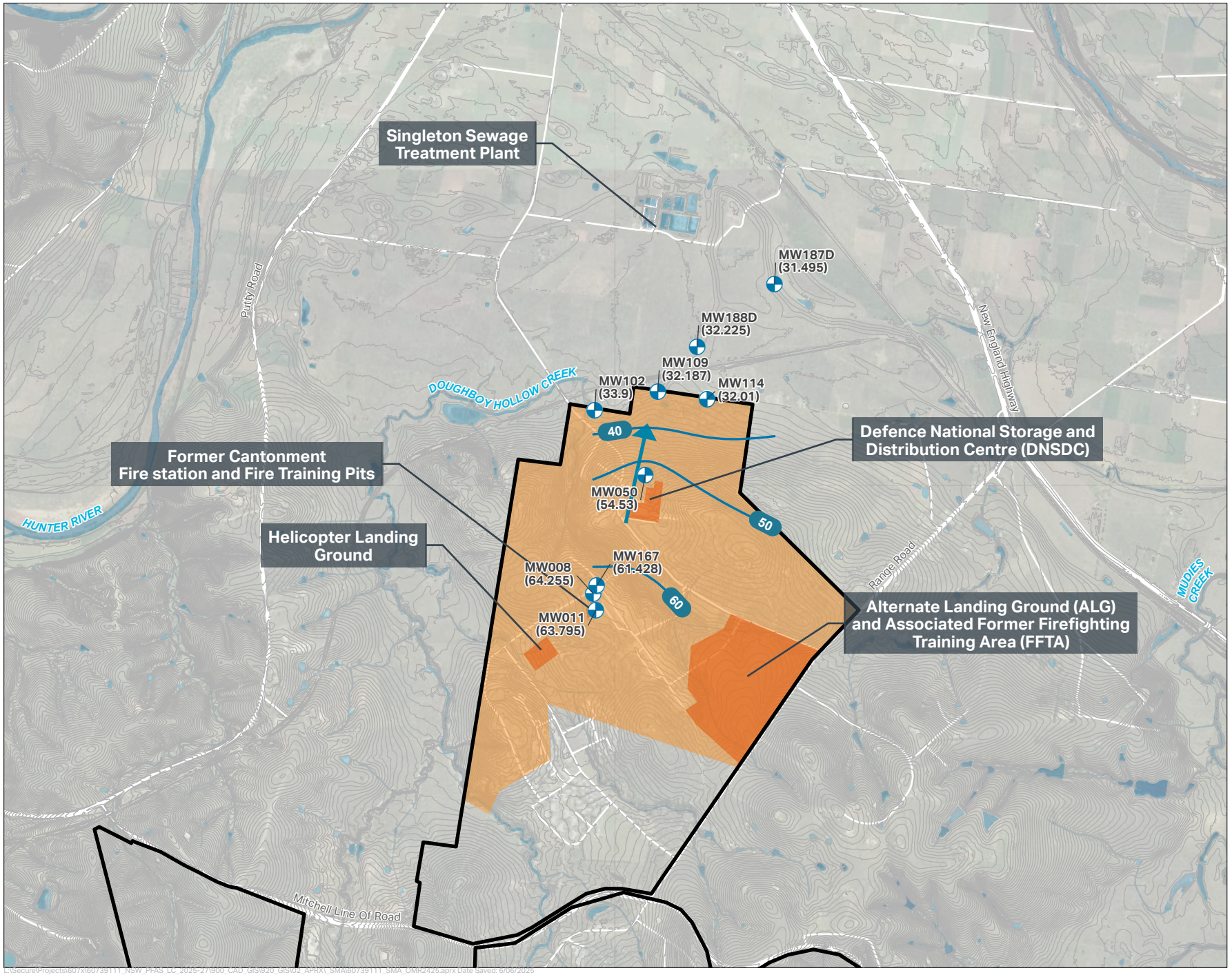
PROJECT NAME:
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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- 1 mAHD Topographical Contour
- Inferred Groundwater Flow Direction
- Groundwater Contours (mAHD)
- Groundwater Location (gauged)

FIGURE F21:
DEEP GROUNDWATER ELEVATION PLAN (JULY 2024)

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PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
July 2024 to June 2025
Singleton Military Area (0356)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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Appendix B

Tables

Table T1 - Groundwater Gauging and Observations

Area (Aquifer)	Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbgl)	Bottom Screen (mbgl)	HydraSleeve Collar Depth (mbTOC)	Visit Date	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit/Gauging Comments
On-base - DNSDC (Shallow)	MW048	CNN0039_GW01/CNN0039_GW001	69.11	4	7	5	2/07/2024	1.402	67.708	6.77	Good condition.
On-base - DNSDC (Shallow)	MW048	CNN0039_GW01/CNN0039_GW001	69.11	4	7	-	4/07/2024	1.672	67.438	-	Targeted gauging round. Good condition.
On-base - DNSDC (Shallow)	MW052	CNN0039_GW05	72.05	0.8	3.8	2.8	2/07/2024	1.898	70.152	4.74	Good condition.
On-base - DNSDC (Shallow)	MW052	CNN0039_GW05	72.05	0.8	3.8	-	4/07/2024	1.872	70.178	-	Targeted gauging round. Good condition.
On-base - DNSDC (Deep)	MW049	CNN0039_GW02/CNN0039_GW002	69.76	2.7	8.7	n/a	2/07/2024	n/a	n/a	n/a	Unable to access. Located within fenced off construction site.
On-base - DNSDC (Deep)	MW050	CNN0039_GW03	64.4	12.5	16	14.5	2/07/2024	9.444	54.956	16.96	Good condition.
On-base - DNSDC (Deep)	MW050	CNN0039_GW03	64.4	12.5	16	-	4/07/2024	9.870	54.530	-	Targeted gauging round. Good condition.
On-base - Dochra Airfield (Shallow)	MW073	NSW1164_MW03S	47.91	7	10	9	4/07/2024	10.280	37.630	11.54	Good condition.
On-base - Dochra Airfield (Deep)	MW063	NSW1164_MW001D/NSW1164_MW01D	42.88	16	19	18	4/07/2024	11.095	31.785	19.95	Good condition.
On-base - Dochra Airfield (Deep)	MW071	NSW1164_MW003D/NSW1164_MW03D	47.87	23.5	29.5	25.5	4/07/2024	8.035	39.835	30.66	Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW008	CNN0018_GW08	74.1	11	14	13	2/07/2024	9.704	64.396	14.96	Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW008	CNN0018_GW08	74.1	11	14	-	4/07/2024	9.845	64.255	-	Targeted gauging round. Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW011	CNN0018_GW02/CNN0018_GW002	74.13	9	12	11	2/07/2024	10.316	63.814	12.75	Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW011	CNN0018_GW02/CNN0018_GW002	74.13	9	12	-	4/07/2024	10.335	63.795	-	Targeted gauging round. Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW167	CNN0230_GW01	72.65	14.5	20.5	17.5	2/07/2024	11.178	61.472	20.48	Good condition.
On-base - Former Cantonment Fire Station and FTP (Deep)	MW167	CNN0230_GW01	72.65	14.5	20.5	-	4/07/2024	11.222	61.428	-	Targeted gauging round. Good condition.
On-base - Helicopter Landing Ground (Shallow)	MW059	HLG_GW03	61.14	2	4	3.5	2/07/2024	2.540	58.600	4.76	Good condition.
On-base - Helicopter Landing Ground (Shallow)	MW059	HLG_GW03	61.14	2	4	-	4/07/2024	2.532	58.608	-	Targeted gauging round. Good condition.
On-base - Northern Boundary (Shallow)	MW104	GW02S	46.72	10	13	n/a	2/07/2024	n/a	n/a	12.86	Good condition. Dry. Confirmed still dry on 4 July 2024. {Note: Table T1 in the July 2024 sampling event report (AECOM, 2025a) included a typographical error indicating a water depth of 13.000 mbTOC and a calculated water elevation in mAHD - no water was observed and the well was dry}.
On-base - Northern Boundary (Shallow)	MW104	GW02S	46.72	10	13	n/a	17/02/2025	n/a	n/a	12.83	HydraSleeve install visit. Good condition. Potential blockage at 12.83 mbTOC. Well dry. No HydraSleeve installed.
On-base - Northern Boundary (Shallow)	MW110	GW03S	45.4	11.5	14	13.5	4/07/2024	13.381	32.019	14.72	Good condition.
On-base - Northern Boundary (Shallow)	MW110	GW03S	45.4	11.5	14	13.5	17/02/2025	13.303	32.097	14.72	HydraSleeve install visit. Good condition. HydraSleeve installed.
On-base - Northern Boundary (Shallow)	MW110	GW03S	45.4	11.5	14	13.5	18/02/2025	13.302	32.098	14.72	Sampling visit. Good condition.
On-base - Northern Boundary (Shallow)	MW115	GW04S	45.86	11	14	13.8	4/07/2024	14.070	31.790	14.87	Good condition. HydraSleeve blocking IP to access depth water. Removed HydraSleeve to record depth water. Rootlets present on IP.
On-base - Northern Boundary (Shallow)	MW118	GW05S	52.72	unknown	unknown	24.8	4/07/2024	17.405	35.315	25.93	Good condition.
On-base - Northern Boundary (Deep)	MW102	GW02D	46.82	12.5	15.5	13	2/07/2024	12.842	33.978	16.69	Good condition.
On-base - Northern Boundary (Deep)	MW102	GW02D	46.82	12.5	15.5	-	4/07/2024	12.920	33.900	-	Targeted gauging round. Good condition.
On-base - Northern Boundary (Deep)	MW102	GW02D	46.82	12.5	15.5	15	17/02/2025	12.924	33.896	16.67	HydraSleeve install visit. Good condition. HydraSleeve installed.
On-base - Northern Boundary (Deep)	MW102	GW02D	46.82	12.5	15.5	15	18/02/2025	12.921	33.899	16.67	Sampling visit. Good condition.
On-base - Northern Boundary (Deep)	MW109	GW03D	45.1	24.5	30	29	4/07/2024	12.913	32.187	30.01	Good condition.
On-base - Northern Boundary (Deep)	MW109	GW03D	45.1	24.5	30	29	17/02/2025	12.827	32.273	29.98	HydraSleeve install visit. Good condition. Potential blockage at 29.98 mbTOC. HydraSleeve installed.
On-base - Northern Boundary (Deep)	MW109	GW03D	45.1	24.5	30	29	18/02/2025	12.832	32.268	29.99	Sampling visit. Good condition. Potential blockage at 29.98 mbTOC.
On-base - Northern Boundary (Deep)	MW114	GW04D	45.9	23.5	29.5	29.3	4/07/2024	13.890	32.010	30.61	Good condition.
Off-base - Northern Boundary (Shallow)	MW126	GW08S	42.78	10.5	13.5	10.9	3/07/2024	10.705	32.075	12.12	Good condition.
Off-base - Northern Boundary (Shallow)	MW128	GW09S	44.08	9.2	12.2	12.6	3/07/2024	11.320	32.760	13.65	Good condition.
Off-base - Northern Boundary (Shallow)	MW188S	MW10S	41.12	8	11	10	3/07/2024	9.150	31.970	12.04	Good condition.
Off-base - Northern Boundary (Shallow)	MW188S	MW10S	41.12	8	11	-	4/07/2024	9.150	31.970	-	Targeted gauging round. Good condition.
Off-base - Northern Boundary (Deep)	MW188D	MW10D	41.25	24	30	27	3/07/2024	9.005	32.245	28.25	Monument destroyed. PVC casing still intact, j-cap secured. The well is able to be accessed and sampled.
Off-base - Northern Boundary (Deep)	MW188D	MW10D	41.25	24	30	-	4/07/2024	9.025	32.225	-	Targeted gauging round. Monument destroyed. PVC casing still intact, j-cap secured.
Off-base - North (Shallow)	MW121	GW06/GW06S	39.82	9.5	12.5	10.5	3/07/2024	7.145	32.675	12.32	Good condition. Gatic flooded above TOC. Water removed prior to opening j-cap.
Off-base - North (Shallow)	MW121	GW06/GW06S	39.82	9.5	12.5	-	4/07/2024	7.460	32.360	-	Targeted gauging round. Good condition.
Off-base - North (Shallow)	MW124	GW07/GW07S	38.68	9.4	13.8	11.5	3/07/2024	7.710	30.970	13.70	Good condition.
Off-base - North (Shallow)	MW124	GW07/GW07S	38.68	9.4	13.8	-	4/07/2024	7.685	30.995	-	Targeted gauging round. Good condition.
Off-base - North (Shallow)	MW187S	MW09S	40.4	7	10	9	3/07/2024	8.980	31.420	10.86	Good condition.
Off-base - North (Shallow)	MW187S	MW09S	40.4	7	10	-	4/07/2024	8.960	31.440	-	Targeted gauging round. Good condition.
Off-base - North (Deep)	MW187D	MW09D	40.23	18.7	24.7	22.7	3/07/2024	8.760	31.470	25.66	Good condition.
Off-base - North (Deep)	MW187D	MW09D	40.23	18.7	24.7	-	4/07/2024	8.735	31.495	-	Targeted gauging round. Good condition.
Off-base - North East (Shallow)	MW056	GW12, MW12S	34.71	5.3	8.3	5.7	3/07/2024	5.875	28.835	8.25	Good condition.
Off-base - North East (Shallow)	MW129	GW10S	37.95	9	12	n/a	3/07/2024	n/a	n/a	n/a	Unable to access. Unable to confirm residential appointment.
Off-base - North East (Shallow)	MW132	RESI_GW011	n/a	unknown	unknown	n/a	3/07/2024	n/a	n/a	n/a	Unable to access. Unable to confirm residential appointment. Residential bore with tap.
Off-base - North East (Shallow)	MW139	RESI_GW013/RESI_GW13	n/a	unknown	unknown	n/a	4/07/2024	n/a	n/a	n/a	Residential bore with tap.

Notes
mAHD = meters Australian Height Datum
mbgl = meters below ground level
mbTOC = meters below Top of Casing
n/a = not applicable
"-" = not measured

Table T2 - Groundwater Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
						mg/L	°C	µS/cm	pH Units	mV	mV
Area (Aquifer)	Location Code	Alternative Name	Date	Location and Sample Comments	Sampling Method						
On-base - DNSDC (Shallow)	MW048	CNN0039_GW01/CNN0039_GW001	2/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	3.65	20.0	364.0	5.46	10.4	216.2
On-base - DNSDC (Shallow)	MW052	CNN0039_GW05	2/07/2024	Clear, no turbidity, no odour, no sheen. Sediment at base of HydraSleeve.	HydraSleeve	2.20	16.9	171.9	6.17	66.0	271.8
On-base - DNSDC (Deep)	MW049	CNN0039_GW02/CNN0039_GW002	2/07/2024	Unable to access. Located within fenced off construction site.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - DNSDC (Deep)	MW050	CNN0039_GW03	2/07/2024	Clear, no turbidity, no odour, brown suspended solids.	HydraSleeve	3.71	16.8	12,693.0	6.87	11.8	217.6
On-base - Dochra Airfield (Shallow)	MW073	NSW1164_MW03S	4/07/2024	Light brown, no turbidity, no odour, no sheen.	HydraSleeve	1.51	20.9	25,914.0	6.72	-52.2	153.6
On-base - Dochra Airfield (Deep)	MW063	NSW1164_MW001D/NSW1164_MW01D	4/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	3.86	17.6	13,930.0	7.57	164.4	370.2
On-base - Dochra Airfield (Deep)	MW071	NSW1164_MW003D/NSW1164_MW03D	4/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	2.14	19.7	10,921.0	9.88	-127.9	77.9
On-base - Former Cantonment Fire Station and FTP (Deep)	MW008	CNN0018_GW08	2/07/2024	Clear, no turbidity, sulfuric odour, no sheen. Sediment at base of HydraSleeve.	HydraSleeve	0.69	19.5	26,668.0	6.89	-129.8	76.0
On-base - Former Cantonment Fire Station and FTP (Deep)	MW011	CNN0018_GW02/CNN0018_GW002	2/07/2024	Light grey, low turbidity, no odour, no sheen. Sediment at base of HydraSleeve.	HydraSleeve	1.92	18.9	20,655.0	5.62	-2.6	203.2
On-base - Former Cantonment Fire Station and FTP (Deep)	MW167	CNN0230_GW01	2/07/2024	Clear, low turbidity, sulfuric odour, no sheen.	HydraSleeve	1.08	19.9	26,524.0	6.70	-144.2	61.6
On-base - Helicopter Landing Ground (Shallow)	MW059	HLG_GW03	2/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	1.39	16.9	20,013.0	6.71	23.5	229.3
On-base - Northern Boundary (Shallow)	MW104	GW02S	2/07/2024	Dry. Confirmed still dry on 4 July 2024.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Northern Boundary (Shallow)	MW104	GW02S	17/02/2025	Dry. HydraSleeve not installed.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Northern Boundary (Shallow)	MW110	GW03S	4/07/2024	Light grey, low turbidity, no odour, no sheen.	HydraSleeve	2.48	18.5	18,490.0	7.13	-21.0	184.8
On-base - Northern Boundary (Shallow)	MW110	GW03S	18/02/2025	Light yellow, no turbidity, no odour, no sheen	HydraSleeve	1.96	21.2	19,926.0	7.01	-126.8	79.0
On-base - Northern Boundary (Shallow)	MW115	GW04S	4/07/2024	Clear, no turbidity, no odour, no sheen. Insufficient water for parameters.	HydraSleeve	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Northern Boundary (Shallow)	MW118	GW05S	4/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	3.31	18.9	15,285.0	6.84	-19.3	186.5
On-base - Northern Boundary (Deep)	MW102	GW02D	2/07/2024	Light brown, no turbidity, no odour, no sheen.	HydraSleeve	2.32	15.3	18,404.0	6.68	10.7	216.5
On-base - Northern Boundary (Deep)	MW102	GW02D	18/02/2025	Clear, no turbidity, no odour, no sheen	HydraSleeve	2.04	21.5	21,054.0	6.63	32.0	237.8
On-base - Northern Boundary (Deep)	MW109	GW03D	4/07/2024	Light grey, low turbidity, sulfuric odour, no sheen.	HydraSleeve	1.07	18.9	16,791.0	6.79	-103.2	102.6
On-base - Northern Boundary (Deep)	MW109	GW03D	18/02/2025	Clear, no turbidity, slight organic odour, no sheen	HydraSleeve	0.65	21.3	12,360.0	7.72	-265.5	-59.7
On-base - Northern Boundary (Deep)	MW114	GW04D	4/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	1.91	19.9	5,623.0	7.46	-121.9	83.9
Off-base - Northern Boundary (Shallow)	MW126	GW08S	3/07/2024	Light grey, low turbidity, no odour, no sheen.	HydraSleeve	4.97	17.3	3,728.0	7.29	133.0	338.8
Off-base - Northern Boundary (Shallow)	MW128	GW09S	3/07/2024	Light brown, no turbidity, no odour, no sheen.	HydraSleeve	4.09	18.2	4,954.0	6.96	144.2	350.0
Off-base - Northern Boundary (Shallow)	MW188S	MW10S	3/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	2.37	17.9	7,390.0	7.23	-117.2	88.6
Off-base - Northern Boundary (Deep)	MW188D	MW10D	3/07/2024	Clear, no turbidity, sulfuric odour, no sheen.	HydraSleeve	0.93	18.7	10,638.0	7.91	-117.6	88.2
Off-base - North (Shallow)	MW121	GW06/GW06S	3/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	2.93	17.0	747.0	7.19	-57.0	148.8
Off-base - North (Shallow)	MW124	GW07/GW07S	3/07/2024	Brown, high turbidity, sulfuric odour, no sheen.	HydraSleeve	4.55	16.4	7,459.0	6.96	69.2	275.0
Off-base - North (Shallow)	MW187S	MW09S	3/07/2024	Clear, no turbidity, no odour, no sheen.	HydraSleeve	3.36	16.9	5,684.0	6.91	42.0	247.8
Off-base - North (Deep)	MW187D	MW09D	3/07/2024	Clear, low turbidity, no odour, brown suspended solids.	HydraSleeve	2.36	17.5	10,357.0	6.99	53.2	259.0
Off-base - North East (Shallow)	MW056	GW12, MW12S	3/07/2024	Grey, medium turbidity, no odour, no sheen.	HydraSleeve	4.00	17.2	1,402.0	7.33	184.9	390.7
Off-base - North East (Shallow)	MW129	GW10S	3/07/2024	Unable to access. Unable to confirm residential appointment.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Off-base - North East (Shallow)	MW132	RESI_GW011	3/07/2024	Unable to access. Unable to confirm residential appointment.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Off-base - North East (Shallow)	MW139	RESI_GW013/RESI_GW13	4/07/2024	Residential bore with tap. Clear, no turbidity, no odour, no sheen.	Grab	5.88	13.8	1,989.0	7.19	126.3	332.1

Notes
°C = degrees Celsius
µS/cm = microSiemens per centimetre
mg/L = milligrams per Litre
mV = milliVolts
Corrected field Redox measurement Eh = Er + 205.8
n/a = not applicable

Table T3 - Surface Water and Wastewater Quality Parameters and Observations

								Water Quality Parameters					
								Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
								mg/L	°C	µS/cm	pH Units	mV	mV
Area	Location Code	Alternative Name	Date	Location Comments	Sample Depth From (m)	Sample Depth To (m)	Sample Comments						
On-base - Sub-catchment A	SW002		02 Jul 2024	Dam. Waterbody 15 m wide, 1.5 m deep. No water flow observed.	0.5	0.5	Light yellow, no turbidity, organic odour, no sheen.	3.00	12.8	720.0	6.87	-52.3	153.5
On-base - Sub-catchment A	SW002		17 Feb 2025	Creek. 10m wide, 0.5m deep. Dense vegetation on surface of water. No flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen.	0.63	22.4	165.1	5.65	83.5	289.3
On-base - Sub-catchment A	SW003		02 Jul 2024	Creek. Waterbody 4 m wide, 0.5 m deep. Water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	7.40	12.2	127.0	6.37	74.9	280.7
On-base - Sub-catchment A	SW003		18 Feb 2025	Creek. 1m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Brown, medium turbidity, slight organic odour, no sheen.	2.06	23.9	217.4	6.14	33.1	238.9
On-base - Sub-catchment A	SW026	SMA13_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 1 m deep. Water flow observed.	0.3	0.4	Light brown, medium turbidity, no odour, no sheen.	6.49	13.9	895.0	7.00	-123.5	82.3
On-base - Sub-catchment A	SW026	SMA13_SW	17 Feb 2025	Creek. 4m wide, 0.7m deep. No flow observed.	0.3	0.4	Brown, medium turbidity, no odour, no sheen	3.60	23.6	316.2	6.16	82.8	288.6
On-base - Sub-catchment A	SW032		02 Jul 2024	Creek. Waterbody 5 m wide, 0.3 m deep. Water flow observed.	0.1	0.2	Light brown, no turbidity, no odour, no sheen.	5.83	11.5	201.3	5.95	168.0	373.8
On-base - Sub-catchment A	SW032		17 Feb 2025	Creek. 5m wide, 0.5m deep. No flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen	1.61	28.1	246.3	6.21	76.9	282.7
On-base - Sub-catchment A	SW034	SMA8_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 0.4 m deep. No water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	4.91	11.3	144.2	6.45	134.8	340.6
On-base - Sub-catchment A	SW034	SMA8_SW	17 Feb 2025	Creek. 2m wide, 0.5m deep. Biosheen observed on the surface of the water. No flow observed.	0.2	0.3	Light yellow, low turbidity, no odour, no sheen.	1.90	28.0	210.4	6.24	65.8	271.6
On-base - Sub-catchment A	SW114		04 Jul 2024	Drain. Waterbody 1 m wide, 0.3 m deep. No water flow observed.	0.1	0.2	Light brown, no turbidity, no odour, no sheen.	7.20	19.0	429.9	8.19	-71.3	134.5
On-base - Sub-catchment A	SW114		18 Feb 2025	Creek. Location not sampled as no longer representative.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Sub-catchment B	SW028	SMA7_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 0.5 m deep. Water flow observed.	0.2	0.3	Clear, no turbidity, no odour, no sheen.	3.52	12.7	277.6	6.65	106.2	312.0
On-base - Sub-catchment B	SW028	SMA7_SW	17 Feb 2025	Creek. 2m wide, 1m deep. No flow observed.	0.4	0.5	Light yellow, low turbidity, no odour, no sheen.	2.00	26.1	190.8	6.45	77.1	282.9
On-base - Sub-catchment B	SW555		04 Jul 2024	Unable to access due to area being fenced off.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Sub-catchment B	SW555		18 Feb 2025	Creek. Unable to access due to area being fenced off. Restricted access signs posted on the fence. Not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Sub-catchment C	SW040		04 Jul 2024	Creek. Waterbody 2 m wide, 0.5 m deep. Water flow observed.	0.2	0.3	Light brown, low turbidity, no odour, no sheen.	5.09	13.0	1,225.0	7.20	-47.2	158.6
On-base - Sub-catchment C	SW040		17 Feb 2025	Creek. 1m wide, 0.5m deep. No flow observed.	0.2	0.3	Light yellow, low turbidity, no odour, no sheen.	3.00	27.9	1,327.0	6.74	52.8	258.6
On-base - Boundary	SW115		02 Jul 2024	Creek. Waterbody 2 m wide, 0.2 m deep. Water flow observed.	0.1	0.2	Clear, no turbidity, no odour, no sheen.	7.73	13.2	471.0	7.78	-23.9	181.9
On-base - Boundary	SW115		17 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Boundary	SW116		04 Jul 2024	Drain. Waterbody 2 m wide, 0.5 m deep. No water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	7.03	16.8	1,257.0	7.32	2.5	208.3
On-base - Boundary	SW116		18 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Dochra Airfield	SW004		04 Jul 2024	Dam. Waterbody 10 m wide, 1 m deep. No water flow osberved.	0.3	0.4	Light brown, no turbidity, no odour, biosheen.	3.93	9.9	139.0	6.42	149.7	355.5
On-base - Dochra Airfield	SW004		19 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
On-base - Dochra Airfield	SW005		04 Jul 2024	Creek. Waterbody 2 m wide, 0.5 m deep. Water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	6.70	9.3	361.2	6.71	140.3	346.1
On-base - Dochra Airfield	SW005		19 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Off-base - North East	SW039	RESI_SW039	03 Jul 2024	Dam. Waterbody 6 m wide, 1 m deep. No water flow observed.	0.3	0.4	Grey, low turbidity, no odour, no sheen.	3.90	12.8	471.0	7.16	119.9	325.7
Off-base - North East	SW039	RESI_SW039	18 Feb 2025	Dam. 10m wide, 1m deep. Vegetation observed on the surface of the water. No flow observed.	0.3	0.4	Brown, high turbidity, sulfurous odour, no sheen.	1.77	27.2	1,078.0	6.86	-32.1	173.7
Off-base - North East	SW064	RESI_SW041	03 Jul 2024	Dam. Waterbody 5 m wide, 0.5 m deep. No water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	5.82	14.4	154.3	7.02	85.2	291.0
Off-base - North East	SW064	RESI_SW041	19 Feb 2025	Creek. 25m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Brown, medium turbidity, organic odour, no sheen.	5.39	32.0	705.0	7.54	-8.1	197.7
Off-base - Singleton STP	OTH006		03 Jul 2024	Effluent wastewater pit. Waterbody 1 m wide, 0.25 m deep. Water flow observed.	0.1	0.2	White/cloudy, medium turbidity, organic odour, no sheen. Geochemical parameters not required.	n/a	n/a	n/a	n/a	n/a	n/a
Off-base - Singleton STP	OTH006		19 Feb 2025	Effluent wastewater pit. Waterbody 1 m wide, 0.25 m deep. Water flow observed.	0.1	0.2	Clear with suspended solids, low turbidity, effluent odour, no sheen.	n/a	n/a	n/a	n/a	n/a	n/a
Off-base - Singleton STP	SW065	RESI_SW042	03 Jul 2024	Creek. Waterbody 3 m wide, 1 m deep. Water flow observed.	0.3	0.4	Clear, no turbidity, no odour, no sheen.	5.74	14.6	512.0	7.33	10.5	216.3
Off-base - Singleton STP	SW065	RESI_SW042	19 Feb 2025	Creek. 3m wide, 0.5m deep. Vegetation on the surface of the water. Low flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen.	3.73	27.9	602.0	7.85	4.9	210.7
Off-base - Singleton STP	SW553		03 Jul 2024	Creek. Waterbody 5 m wide, 1 m deep. No water flow observed.	0.3	0.4	Light brown, low turbidity, no odour, no sheen.	6.11	15.1	262.0	7.23	-43.9	161.9
Off-base - Singleton STP	SW553		19 Feb 2025	Creek. 8m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Yellow, medium turbidity, organic odour, no sheen.	3.79	29.8	421.8	7.16	4.3	210.1
Off-base - Singleton STP	SW563		03 Jul 2024	Dam. Waterbody 5 m wide, 0.5 m deep. No water flow observed.	0.2	0.3	Clear, no turbidity, no odour, no sheen.	8.42	15.6	495.0	9.18	-30.1	175.7
Off-base - Singleton STP	SW563		19 Feb 2025	Dam. 10m wide, 0.5m deep. No flow observed.	0.2	0.3	Grey, medium turbidity, sulfurous odour, no sheen.	5.71	29.7	627.0	9.21	-14.5	191.3
Off-base - North West	SW035	RESI_SW035	03 Jul 2024	Dam. Waterbody 10 m wide, 1 m deep. No water flow observed.	0.3	0.4	Brown, low turbidity, no odour, no sheen.	4.13	13.3	227.3	6.44	110.3	316.1
Off-base - North West	SW035	RESI_SW035	18 Feb 2025	Agricultural dam. 30m wide, 0.5m deep. No flow observed.	0.2	0.3	Light brown, medium turbidity, organic odour, no sheen.	5.48	28.8	1,841.0	6.79	-3.8	202.0
Off-base - North West	SW036	RESI_SW036	03 Jul 2024	Dam. Waterbody 10 m wide, 0.5m deep. No water flow observed.	0.2	0.3	Light brown, no turbidity, no odour, no sheen.	2.88	14.4	176.6	6.36	93.6	299.4
Off-base - North West	SW036	RESI_SW036	18 Feb 2025	Agricultural dam. 20m wide, 0.5m deep. No flow observed.	0.2	0.3	Light brown, medium turbidity, organic odour, no sheen.	3.70	29.4	227.7	6.77	-1.2	204.6

Notes
°C = degrees Celsius
µS/cm = microSiemens per centimetre
mg/L = milligrams per Litre
mV = milliVolts
Corrected field Redox measurement Eh = Er + 205.8
n/a = not applicable

Table T4 - Sediment Observations

Area	Location Code	Alternative Name	Date	Sample Depth From (m)	Sample Depth To (m)	Location Comments	Sample Comments
On-base - Sub-catchment A	SD002		2/07/2024	0.1	0.2		Sandy CLAY: brown, fine grain sand, high plasticity, wet, with organic inclusions (rootlets). No odour, no staining.
On-base - Sub-catchment A	SD002		17/02/2025	0.2	0.3	Creek bed.	Silty SAND: grey, low plasticity, fine-medium grained, with organic inclusions (fine rootlets), damp. No odour, no staining.
On-base - Sub-catchment A	SD003		2/07/2024	0.1	0.2		Silty CLAY: dark brown, fine grain silt, medium plasticity, wet, with organic inclusions (rootlets). No odour, no staining.
On-base - Sub-catchment A	SD003		18/02/2025	0.2	0.3	Creek bed.	CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
On-base - Sub-catchment A	SD032		2/07/2024	0.1	0.2		Clayey sandy GRAVEL: grey with brown clayey sands, medium gravels sub-angular to sub-rounded, fine grain sand, low plasticity, moist. No odour, no staining.
On-base - Sub-catchment A	SD032		17/02/2025	0.2	0.3	Creek bed.	Sandy SILT: brown, medium plasticity, medium, with organic inclusions (rootlets).No odour, no staining.
On-base - Sub-catchment A	SD053	SMA13_SD	2/07/2024	0.1	0.2		Clayey gravelly SAND: dark brown, fine grain, low plasticity, gravels sub-angular to sub-rounded, moist, with trace organic inclusions (rootlets). No odour, no staining.
On-base - Sub-catchment A	SD053	SMA13_SD	17/02/2025	0.2	0.3	Creek bed.	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
On-base - Sub-catchment A	SD065	SMA8_SD	2/07/2024	0.1	0.2		Clayey SAND: brown, fine grain, with trace organic inclusions (rootlets). No odour, no staining.
On-base - Sub-catchment A	SD065	SMA8_SD	17/02/2025	0.2	0.3	Creek bed.	Silty SAND: brown, low plasticity, fine-medium grained, dry. No odour, no staining.
On-base - Sub-catchment A	SD114		4/07/2024	0.1	0.2		Silty CLAY: orange to brown, low plasticity, firm, moist, with organic inclusions (rootlets). No odour, no staining.
On-base - Sub-catchment A	SD114		18/02/2025	n/a	n/a	Location not sampled as no longer representative.	n/a
On-base - Sub-catchment B	SD055	SMA7_SD	2/07/2024	0.1	0.2		Silty CLAY: dark brown, fine grain silt, low plasticity, moist, with trace organic inclusions (rootlets and bark >5cm). No odour, no staining.
On-base - Sub-catchment B	SD055	SMA7_SD	17/02/2025	0.2	0.3	Creek bed.	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
On-base - Sub-catchment B	SD555		4/07/2024	n/a	n/a	Unable to access due to area being fenced off.	n/a
On-base - Sub-catchment B	SD555		18/02/2025	n/a	n/a	Unable to access due to area being fenced off. Restricted access signs posted on the fence.	n/a
On-base - Sub-catchment C	SD040		4/07/2024	0.1	0.2		Gravelly sandy CLAY: dark brown, fine grain, low plasticity, firm, gravels sub-angular to sub-rounded, moist, with trace organic inclusions (rootlets and bark). No odour, no staining.
On-base - Sub-catchment C	SD040		17/02/2025	0.2	0.3	Creek bed	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (woody roots), wet. No odour, no staining.
On-base - Boundary	SD115		2/07/2024	0.1	0.2		Clayey SAND: dark brown, fine grain sand, low plasticity, with trace gravels (sub -angular) and organic inclusions (rootlets). No odour, no staining.
On-base - Boundary	SD115		17/02/2025	0.2	0.3	Creek bed.	SAND: brown, low, medium-coarse grain with gravel 2-5mm, damp. No odour, no staining.
On-base - Boundary	SD116		4/07/2024	0.1	0.2		Silty CLAY: orange to brown, low plasticity, firm, moist, with organic inclusions (rootlets). No odour, no staining.
On-base - Boundary	SD116		18/02/2025	0.2	0.3	Creek bed.	CLAY: brown, high plasticity, fine grained, wet. No odour, no staining.
On-base - Dochra Airfield	SD004		4/07/2024	0.1	0.2		Silty CLAY: dark brown, fine grain silt, high plasticity, wet, with trace organic inclusions (rootlets). No odour, no staining.
On-base - Dochra Airfield	SD004		19/02/2025	0.2	0.3	Creek bed.	CLAY: brown with red streaking, high plasticity, fine grained, saturated. No odour, no staining.
On-base - Dochra Airfield	SD005		4/07/2024	0.1	0.2		Sandy silty CLAY: dark brown, fine grain, high plasticity, moist to saturated, with trace organic inclusions (rootlets). No odour, no staining.
On-base - Dochra Airfield	SD005		19/02/2025	0.2	0.3	Creek bed.	SILT: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
Off-base - North East	SD039	RESI_SD039	3/07/2024	0.1	0.2		Silty CLAY: dark grey, fine grain silt, high plasticity, moist, with trace organic inclusions (rootlets). No odour, no staining.
Off-base - North East	SD039	RESI_SD039	18/02/2025	0.2	0.3	Dam bed.	CLAY: brown grey, high plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
Off-base - North East	SD046	RESI_SD041	3/07/2024	0.1	0.2		Silty CLAY: brown, fine grain silt, medium plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
Off-base - North East	SD046	RESI_SD041	19/02/2025	0.2	0.3	Creek bed	Sandy SILT: brown, medium plasticity, fine grained, damp. Organic odour, no staining.
Off-base - Singleton STP	SD047	RESI_SD042	3/07/2024	0.1	0.2		Gravelly SAND: dark brown, fine, loose, gravels sub-angular, with organic inclusions (rootlets). No odour, no staining
Off-base - Singleton STP	SD047	RESI_SD042	19/02/2025	0.2	0.3	Creek edge.	SILT: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
Off-base - Singleton STP	SD539		3/07/2024	0.1	0.2		Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
Off-base - Singleton STP	SD539		19/02/2025	0.2	0.3	Creek bed.	CLAY: grey, high plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
Off-base - Singleton STP	SD563		3/07/2024	0.1	0.2		Silty SAND: dark brown, fine grain, loose, moist, with organic inclusions (rootlets). No odour, no staining.
Off-base - Singleton STP	SD563		19/02/2025	0.2	0.3	Dam bed.	Sandy CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
Off-base - North West	SD052	RESI_SD035	3/07/2024	0.1	0.2		Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
Off-base - North West	SD052	RESI_SD035	18/02/2025	0.2	0.3	Dam bed	SILT: grey, low plasticity, fine grained, dry. No odour, no staining.
Off-base - North West	SD080	RESI_SD013	3/07/2024	0.1	0.2		Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
Off-base - North West	SD080	RESI_SD013	18/02/2025	0.2	0.3	Dam bed.	Silty SAND: brown grey, medium plasticity, medium grained, with 2-5mm gravel, dry. No odour, no staining.

Notes
n/a = not applicable

Table T5 - Historical Groundwater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	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)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
Australian Drinking Water Guidelines 2025							0.2	0.008	0.03			1																							
PFAS NEMP 2025 Freshwater 99%							*19*	*0.00023*																											
Human health EPC - Groundwater (AECOM, 2021)							0.02	0.04	0.08																										
Area (Aquifer)	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
On-base - FCFS and FTP (Deep)	MW008	15 May 2019	0356_CNN0018_GW08_190515	Normal	ES1914836	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW008	21 Jul 2022	0356_MW008_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW008	02 Jul 2024	0356_MW008_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW011	05 Oct 2018	CNN0018_GW02_181005	Normal	ES1832291	NSW_0356_PFAS	<0.05	*0.12*	0.3	0.42	-	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	0.48	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.05	<0.12
On-base - FCFS and FTP (Deep)	MW011	28 Feb 2019	0356_CNN0018_GW02_190228	Normal	ES1906391	NSW_0356_PFAS	0.004	*0.029*	0.054	0.083	0.176	0.019	0.008	0.002	<0.002	<0.01	0.008	0.035	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.014	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_CNN0018_GW02_190515	Normal	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_QC145_GW_190515	Field_D	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_QC245_GW_190515	Field_D	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW011	21 Jul 2022	0356_MW011_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.04	0.07	<0.02	<0.02	<0.02	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW011	02 Jul 2024	0356_MW011_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.04	0.06	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW048	03 Oct 2018	0356_CNN0039_GW01_181003	Normal	ES1832056	NSW_0356_PFAS	0.03	*0.03*	2.17	2.2	-	0.17	0.24	<0.02	<0.02	<0.1	0.04	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW048	27 Feb 2019	0356_CNN0039_GW01_190227	Normal	ES1906166	NSW_0356_PFAS	0.042	*0.03*	2.68	2.71	3.96	0.293	0.461	0.017	<0.002	<0.01	0.067	0.299	0.051	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.016	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - DNSDC (Shallow)	MW048	10 May 2019	0356_CNN0039_GW01_190510	Normal	ES1914221	NSW_0356_PFAS	0.03	*0.02*	2.26	2.28	2.88	0.16	0.24	<0.02	<0.02	<0.1	<0.02	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_MW048_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.05	*0.02*	2.26	2.28	3.14	0.15	0.31	<0.02	<0.02	<0.1	0.04	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_QC103_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.05	*0.02*	2.24	2.26	3.15	0.19	0.31	<0.02	<0.02	<0.1	0.06	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_QC203_220721	Interlab_D	301227	NSW_0356_PFASOMP_22	0.06	*0.02*	2.6	2.7	3.6	0.21	0.31	0.02	<0.02	0.04	0.05	0.23	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - DNSDC (Shallow)	MW048	02 Jul 2024	0356_MW048_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.08	*0.06*	3.04	3.1	4.31	0.2	0.4	0.03	<0.02	<0.1	0.07	0.31	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Deep)	MW049	03 Oct 2018	0356_CNN0039_GW02_181003	Normal	ES1832056	NSW_0356_PFAS	0.06	*1.12*	1.26	2.38	-	0.07	0.09	0.1	<0.02	<0.1	0.03	0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Deep)	MW049	27 Feb 2019	0356_CNN0039_GW02_190227	Normal	ES1906166	NSW_0356_PFAS	0.169	*6.45*	3.97	10.4	11.9	0.204	0.316	0.339	<0.002	<0.01	0.057	0.36	0.048	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.03	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - DNSDC (Deep)	MW049	10 May 2019	0356_CNN0039_GW02_190510	Normal	ES1914221	NSW_0356_PFAS	0.09	*2.13*	3.16	5.29	6.21	0.15	0.26	0.14	<0.02	<0.1	<0.02	0.25	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Deep)	MW050	07 May 2019	0356_CNN0039_GW03_190507	Normal	ES1913966	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Deep)	MW050	21 Jul 2022	0356_MW050_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Deep)	MW050	02 Jul 2024	0356_MW050_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW052	10 May 2019	0356_CNN0039_GW05_190510	Normal	ES1914221	NSW_0356_PFAS	0.03	*0.42*	0.53	0.95	1.09	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW052	21 Jul 2022	0356_MW052_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.02	*0.38*	0.28	0.66	0.79	<0.02	0.02	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - DNSDC (Shallow)	MW052	02 Jul 2024	0356_MW052_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.03	*0.72*	0.62	1.34	1.53	0.02	0.03	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	08 May 2019	0356_GW12_190508	Normal	ES1913970	NSW_0356_PFAS	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	30 May 2019	0356_GW12_190530	Normal	ES1917197	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	19 Jul 2023	0356_MW056_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.12*	0.04	0.16	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_MW056_2310251125	Normal	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.09*	0.03	0.12	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_MW056_2310251200	Normal	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.06*	0.04	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_QC101_231025	Field_D	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.1*	0.03	0.13	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	24 Jan 2024	0356_MW056_240124	Normal	ES2402506	NSW_0356_PFASOMP_24	<0.01	*0.08*	0.02	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW056	03 Jul 2024	0356_MW056_240703	Normal	ES2422147	NSW_0356_PFASOMP_24	<0.01	*0.07*	0.02	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - HLG (Shallow)	MW059	08 May 2019	0356_HLG_GW03_190508	Normal	ES1913967	NSW_0356_PFAS	<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - HLG (Shallow)	MW059	21 Jul 2022	0356_MW059_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - HLG (Shallow)	MW059	02 Jul 2024	0356_MW059_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW063	07 Feb 2019	0356_NSW1164_MW01D_190207	Normal	ES1903889	NSW_0356_PFAS	<0.05	*0.07*	<0.05	0.07	0.35	0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.23	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
On-base - Dochra Airfield (Deep)	MW063	09 May 2019	0356_NSW1164_MW01D_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW063	19 Jul 2022	0356_MW063_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.05*	<0.01	0.05	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.24	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_MW063_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.05*	<0.01	0.05	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_QC105_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.05*	<0.01	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_QC205_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	*0.04*	<0.01	0.04	0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Dochra Airfield (Deep)	MW071	06 Feb 2019	0356_NSW1164_MW03D_190206	Normal	ES1903889	NSW_0356_PFAS	<0.05	*0.08*	<0.05	0.08	0.15	0.07	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
On-base - Dochra Airfield (Deep)	MW071	09 May 2019	0356_NSW1164_MW03D_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW071	19 Jul 2022	0356_MW071_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Deep)	MW071	04 Jul 2024	0356_MW071_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	06 Feb 2019	0356_NSW1164_MW03S_190206	Normal	ES1903889	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	1.52	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	09 May 2019	0356_NSW1164_MW03S_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	19 Jul 2022	0356_MW073_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_MW073_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_QC106_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_QC206_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Northern Boundary (Deep)	MW102	06 May 2019	0356_GW02D_190506	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	08 May 2019	0356_GW02D_190508	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.1	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	20 Oct 2020	0356-GW-02D-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	21 Jul 2022	0356_MW102_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02

Table T5 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
Australian Drinking Water Guidelines 2025						0.2	0.008	0.03			1																							
PFAS NEMP 2025 Freshwater 99%						*19*	*0.00023*																											
Human health EPC - Groundwater (AECOM, 2021)						0.02	0.04	0.08																										
Area (Aquifer)	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
On-base - Northern Boundary (Deep)	MW102	23 Jan 2024	0356_MW102_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_MW102_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_QC102_240702	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_QC202_240702	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_MW102_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_QC102_250218	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_QC202_250218	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.2	<0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.05	<0.05	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Northern Boundary (Deep)	MW109	10 May 2019	0356_GW03D_190510	Normal	ES1914221	NSW_0356_PFAS	<0.01	*0.28*	<0.02	0.28	1.76	<0.02	<0.02	<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	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	28 May 2019	0356_GW03D_190528	Normal	ES1916262	NSW_0356_PFAS	<0.01	*0.16*	<0.02	0.16	0.23	<0.02	<0.02	<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	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	19 Oct 2020	0356_QC254_201020	Interlab_D	RN1292430	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
On-base - Northern Boundary (Deep)	MW109	20 Oct 2020	0356-GW03D-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	20 Oct 2020	0356-QC154-201020	Field_D	ES2036949	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	21 Jul 2022	0356_MW109_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	18 Jan 2023	0356_MW109_230118	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	*0.06*	0.06	0.12	0.16	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	17 Jul 2023	0356_MW109_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_MW109_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.05*	0.06	0.11	0.11	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_QC102_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_QC202_240123	Interlab_D	342545	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Northern Boundary (Deep)	MW109	04 Jul 2024	0356_MW109_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW109	18 Feb 2025	0356_MW109_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.11*	0.16	0.27	0.33	0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	07 May 2019	0356_GW03S_190507	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.3	<0.02	<0.02	<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	0.3	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	20 Oct 2020	0356-GW03S-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	21 Jul 2022	0356_MW110_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	18 Jan 2023	0356_MW110_230118	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	17 Jul 2023	0356_MW110_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	23 Jan 2024	0356_MW110_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	04 Jul 2024	0356_MW110_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW110	18 Feb 2025	0356_MW110_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW114	06 May 2019	0356_GW04D_190506	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW114	20 Oct 2020	0356-GW04D-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW114	21 Jul 2022	0356_MW114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW114	17 Jul 2023	0356_MW114_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Deep)	MW114	04 Jul 2024	0356_MW114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW115	06 May 2019	0356_GW04S_190506	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW115	20 Oct 2020	0356-GW04S-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW115	21 Jul 2022	0356_MW115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW115	17 Jul 2023	0356_MW115_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW115	04 Jul 2024	0356_MW115_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW118	06 May 2019	0356_GW05S_190506	Normal	ES1913966	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.09	<0.02	<0.02	<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	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW118	21 Jul 2022	0356_MW118_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_MW118_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_QC100_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_QC200_230717	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Northern Boundary (Shallow)	MW118	04 Jul 2024	0356_MW118_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	02 May 2019	0356_GW06_190502	Normal	ES1913385	NSW_0356_PFAS	0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	31 May 2019	0356_GW06_190531	Normal	ES1917196	NSW_0356_PFAS	0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	19 Oct 2020	0356_GW06_201019	Normal	ES2036629	NSW_0356_PFAS	0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_MW121_220722	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_QC106_220722	Field_D	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_QC206_220722	Interlab_D	301227	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - North (Shallow)	MW121	19 Jul 2023	0356_MW121_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW121	03 Jul 2024	0356_MW121_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW124	02 May 2019	0356_GW07_190502	Normal	ES1913385	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW124	31 May 2019	0356_GW07_190531	Normal	ES1917196	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW124	19 Oct 2020	0356_GW07_201019	Normal	ES2036629	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW124	20 Jul 2022	0356_MW124_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	<0.01	0.07	0.07	0.07	<0.02	<0.02	<0.02	<0.02

Table T5 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
Australian Drinking Water Guidelines 2025						0.2	0.008	0.03			1																							
PFAS NEMP 2025 Freshwater 99%						*19*	*0.00023*																											
Human health EPC - Groundwater (AECOM, 2021)						0.02	0.04	0.08																										
Area (Aquifer)	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_MW126_2310250850	Normal	ES2336799	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_MW126_2310251035	Normal	ES2336799	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_QC100_231025	Field_D	ES2336799	NSW_0356_PFASOMP_23	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW126	24 Jan 2024	0356_MW126_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW126	03 Jul 2024	0356_MW126_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.01	<0.01	0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW128	03 May 2019	0356_GW09S_190503	Normal	ES1913384	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW128	30 May 2019	0356_GW09S_190530	Normal	ES1917195	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW128	22 Jul 2022	0356_MW128_220722	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW128	18 Jul 2023	0356_MW128_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW128	03 Jul 2024	0356_MW128_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW129	03 May 2019	0356_GW10S_190503	Normal	ES1913383	NSW_0356_PFAS	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW129	30 May 2019	0356_GW10S_190530	Normal	ES1917198	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW132	06 Nov 2018	0356_RESI_GW011_181106	Normal	ES1832961	NSW_0356_PFAS	<0.01	*0.02*	0.03	0.05	-	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW132	07 May 2019	0356_RESI_GW011_190507	Normal	ES1913968	NSW_0356_PFAS	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW132	19 Jul 2022	0356_MW132_220719	Normal	ES2226118	NSW_0356_PFASOMP_22	<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW139	18 Dec 2018	0356_RESI_GW013_181218	Normal	ES1838112	NSW_0356_PFAS	0.02	*0.03*	0.08	0.11	-	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW139	08 May 2019	0356_RESI_GW013_190508	Normal	ES1913969	NSW_0356_PFAS	<0.01	*0.03*	0.08	0.11	0.11	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW139	28 May 2020	0356_RESI_GW013_200528	Normal	ES2018479	NSW_0356_PFAS	0.02	*0.04*	0.06	0.1	0.12	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW139	18 Jul 2023	0356_MW139_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North East (Shallow)	MW139	04 Jul 2024	0356_MW139_240704	Normal	ES2422143	NSW_0356_PFASOMP_24	0.01	*0.03*	0.01	0.04	0.05	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW167	02 Oct 2018	0356_CNN0230_GW01_181002	Normal	ES1832056	NSW_0356_PFAS	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
On-base - FCFS and FTP (Deep)	MW167	01 Mar 2019	0356_CNN0230_GW01_190301	Normal	ES1906391	NSW_0356_PFAS	<0.002	*0.012*	<0.002	0.012	0.36	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.348	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - FCFS and FTP (Deep)	MW167	15 May 2019	0356_CNN0230_GW01_190515	Normal	ES1914836	NSW_0356_PFAS	<0.01	*0.21*	0.02	0.23	0.74	<0.02	<0.02	<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	0.51	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW167	21 Jul 2022	0356_MW167_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
On-base - FCFS and FTP (Deep)	MW167	02 Jul 2024	0356_MW167_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Deep)	MW187D	03 Sep 2020	0356_MW09D_200903	Normal	ES2031221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Deep)	MW187D	20 Jul 2022	0356_MW187D_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Deep)	MW187D	19 Jul 2023	0356_MW187D_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Deep)	MW187D	03 Jul 2024	0356_MW187D_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_MW187S_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_QC102_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_QC202_220720	Interlab_D	301227	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - North (Shallow)	MW187S	19 Jul 2023	0356_MW187S_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - North (Shallow)	MW187S	03 Jul 2024	0356_MW187S_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Deep)	MW188D	03 Aug 2020	0356_QC251_200903	Interlab_D	RN1288903	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
Off-base - Northern Boundary (Deep)	MW188D	03 Aug 2020	QC251_200903	Interlab_D	RN1287633	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
Off-base - Northern Boundary (Deep)	MW188D	03 Sep 2020	0356_MW10D_200903	Normal	ES2031221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Deep)	MW188D	22 Jul 2022	0356_MW188D_220722	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.02*	<0.01	0.02	0.34	<0.02	<0.02	<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	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Deep)	MW188D	19 Jul 2023	0356_MW188D_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.03*	<0.01	0.03	0.19	<0.02	<0.02	<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	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Deep)	MW188D	03 Jul 2024	0356_MW188D_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW188S	03 Sep 2020	0356_MW10S_200903	Normal	ES2031221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW188S	03 Sep 2020	0356_QC151_200903	Field_D	ES2031221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW188S	22 Jul 2022	0356_MW188S_220722	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW188S	19 Jul 2023	0356_MW188S_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05
Off-base - Northern Boundary (Shallow)	MW188S	03 Jul 2024	0356_MW188S_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
µg/L = micrograms per litre
DNSDC = Defence National Storage and Distribution Centre
FCFS = Former Cantonment Fire Station
FTP = Fire Training Pit
HLG = Helicopter Landing Ground

Table T6 - Historical Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	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	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2025 Recreational Water						10			2																											
PFAS NEMP 2025 Freshwater 99%						*19*	*0.00023*																													
Human Health EPC - Surface Water (AECOM, 2021)						*0.05*	*0.47*	*0.28*																												
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)						*0.1*	*1.26*																													
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)						*0.05*	*0.04*																													
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
Off-base - Singleton STP	OTH006	03 Apr 2019	0356_OTH006_190403	Normal	ES1910566	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_OTH006_201019	Normal	ES2036629	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_QC152_201019	Field_D	ES2036629	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_QC252_201019	Interlab_D	RN1292419	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
Off-base - Singleton STP	OTH006	20 Jul 2022	0356_OTH006_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	0.01	*0.12*	0.11	0.23	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	18 Jan 2023	0356_OTH006_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.01	*0.16*	0.04	0.2	0.2	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	19 Jul 2023	0356_OTH006_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	24 Jan 2024	0356_OTH006_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.12*	0.03	0.15	0.15	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	03 Jul 2024	0356_OTH006_240703	Normal	ES2422142	NSW_0356_PFASOMP_24	<0.01	*0.07*	0.02	0.09	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	OTH006	19 Feb 2025	0356_OTH006_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	08 Oct 2018	0356_SW002_SW_181008	Normal	ES1832291	NSW_0356_PFAS	0.01	*0.33*	0.34	0.67	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	28 Feb 2019	0356_SW002_190228	Normal	ES1906391	NSW_0356_PFAS	0.007	*0.18*	0.21	0.39	0.465	0.013	0.011	0.005	<0.002	<0.01	0.009	0.026	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - Sub-catchment A	SW002	24 Apr 2019	0356_SW002_190424	Normal	ES1912502	NSW_0356_PFAS	0.02	*0.31*	0.2	0.51	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	16 Apr 2020	0356_SW002_200416	Normal	ES2013148	NSW_0356_PFAS	<0.01	*0.26*	0.24	0.5	0.54	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_SW002_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.33*	0.24	0.57	0.65	0.03	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_QC104_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.34*	0.21	0.55	0.6	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_QC204_220721	Interlab_D	301227	NSW_0356_PFASOMP_22	0.01	*0.42*	0.24	0.66	0.76	0.02	0.02	0.01	<0.02	<0.02	<0.02	0.04	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	
On-base - Sub-catchment A	SW002	17 Jan 2023	0356_SW002_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.05	*0.85*	0.81	1.66	2.13	0.05	0.07	0.04	<0.02	<0.1	0.04	0.2	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	17 Jul 2023	0356_SW002_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.07	*1*	1.2	2.2	2.61	0.03	0.07	0.03	<0.02	<0.1	0.03	0.15	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	23 Jan 2024	0356_SW002_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	0.04	*0.78*	0.45	1.23	1.37	<0.02	<0.02	0.03	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	02 Jul 2024	0356_SW002_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.05	*0.67*	0.99	1.66	2.02	0.03	0.06	0.04	<0.02	<0.1	0.04	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_SW002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.03	*0.68*	0.62	1.3	1.48	0.02	0.03	0.04	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_QC101_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	0.02	*0.8*	0.55	1.35	1.52	0.02	0.02	0.05	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_QC201_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	0.03	*0.66*	0.54	1.2	1.4	0.02	0.02	0.03	<0.02	<0.02	<0.02	0.06	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	
On-base - Sub-catchment A	SW003	30 Nov 2018	0356_SW003_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	17 Apr 2019	0356_SW003_190417	Normal	ES1912500	NSW_0356_PFAS	0.02	*0.24*	0.23	0.47	0.61	0.06	<0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	21 Jul 2022	0356_SW003_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	17 Jan 2023	0356_SW003_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_SW003_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_QC102_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_QC202_230717	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	
On-base - Sub-catchment A	SW003	23 Jan 2024	0356_SW003_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	02 Jul 2024	0356_SW003_240724	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW003	18 Feb 2025	0356_SW003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	30 Nov 2018	0356_SW004_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	18 Apr 2019	0356_SW004_190418	Normal	ES1912500	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	18 Apr 2020	0356_SW004_200418	Normal	ES2013148	NSW_0356_PFAS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<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	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - Dochra Airfield	SW004	19 Jul 2022	0356_SW004_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	19 Jan 2023	0356_SW004_230119	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	19 Jul 2023	0356_SW004_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_SW004_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_QC103_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_QC203_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	
On-base - Dochra Airfield	SW005	30 Nov 2018	0356_SW005_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW005	18 Apr 2019	0356_SW005_190418	Normal	ES1912500	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW005	18 Apr 2019	0356_QC241_SW_190418	Interlab_D	216434	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	
On-base - Dochra Airfield	SW005	18 Apr 2020	0356_SW005_200418	Normal	ES2013148	NSW_0356_PFAS	<0.002	*0.009*	0.004	0.013	0.013	<0.002	<0.002	<0.002	<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	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
On-base - Dochra Airfield	SW005	19 Jul 2022	0356_SW005_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW005	19 Jul 2023	0356_SW005_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Dochra Airfield	SW005	04 Jul 2024	0356_SW005_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T6 - Historical Surface Water and Wastewater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2025 Recreational Water							10			2																											
PFAS NEMP 2025 Freshwater 99%							*19*	*0.00023*																													
Human Health EPC - Surface Water (AECOM, 2021)							*0.05*	*0.47*	*0.28*																												
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							*0.1*	*1.26*																													
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							*0.05*	*0.04*																													
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																																
On-base - Sub-catchment A	SW026	08 Oct 2018	0356_SMA13_SW_181008	Normal	ES1832291	NSW_0356_PFAS	<0.01	*0.23*	0.12	0.35	-	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	24 Apr 2019	0356_SMA13_SW_190424	Normal	ES1912502	NSW_0356_PFAS	0.01	*0.24*	0.13	0.37	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	16 Apr 2020	0356_SMA13_200416	Normal	ES2013148	NSW_0356_PFAS	<0.01	*0.24*	0.11	0.35	0.35	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	16 Apr 2020	0356_QC101_200416	Field_D	ES2013148	NSW_0356_PFAS	<0.01	*0.27*	0.12	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	21 Jul 2022	0356_SW026_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.02	*0.76*	0.44	1.2	1.38	0.06	0.03	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	17 Jan 2023	0356_SW026_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.02	*0.63*	0.28	0.91	1.08	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	17 Jul 2023	0356_SW026_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.33*	0.16	0.49	0.49	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	23 Jan 2024	0356_SW026_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	0.02	*0.89*	0.32	1.21	1.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	02 Jul 2024	0356_SW026_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.01	*0.45*	0.34	0.79	0.87	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW026	17 Feb 2025	0356_SW026_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.28*	0.18	0.46	0.46	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_SWA7_SW_181025	Normal	ES1832529	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_QC134_SW_181025	Field_D	ES1832529	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_QC234_SW_181025	Interlab_D	204852	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment B	SW028	17 Apr 2019	0356_SMA7_SW_190417	Normal	ES1912500	NSW_0356_PFAS	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	21 Jul 2022	0356_SW028_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_SW028_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_QC101_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_QC201_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_SW028_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_QC103_230718	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_QC203_230718	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_SW028_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_QC100_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_QC200_240123	Interlab_D	342545	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment B	SW028	02 Jul 2024	0356_SW028_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW028	17 Feb 2025	0356_SW028_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	22 Mar 2019	0356_SW032_190322	Normal	ES1913790	NSW_0356_PFAS	<0.01	*0.07*	0.02	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	21 Jul 2022	0356_SW032_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.03	*0.86*	0.71	1.57	1.81	0.04	0.06	<0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	17 Jan 2023	0356_SW032_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.08	*2.13*	1.69	3.82	4.85	0.17	0.21	0.07	<0.02	<0.1	0.06	0.4	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	17 Jul 2023	0356_SW032_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.04	*2.02*	1.01	3.03	3.38	0.05	0.07	0.04	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	23 Jan 2024	0356_SW032_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.32*	0.07	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_SW032_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.43*	0.24	0.67	0.67	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_QC100_240702	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.47*	0.21	0.68	0.7	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_QC200_240702	Interlab_D	355926	NSW_0356_PFASOMP_24	0.01	*0.36*	0.22	0.58	0.64	0.02	0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment A	SW032	17 Feb 2025	0356_SW032_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.01	*0.54*	0.26	0.8	0.83	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	30 Nov 2018	0356_SMA8_SW_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.16*	0.09	0.25	0.32	0.03	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	08 Feb 2019	0356_SMA8_SW_190208	Normal	ES1903952	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	24 Apr 2019	0356_SMA8_SW_190424	Normal	ES1912502	NSW_0356_PFAS	<0.01	*0.21*	0.1	0.31	0.31	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	24 Apr 2020	0356_SMA8_200424	Normal	ES2014144	NSW_0356_PFAS	0.01	*0.43*	0.44	0.87	0.96	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	19 Oct 2020	0356_SMA8_201019	Normal	ES2036628	NSW_0356_PFAS	<0.01	*0.35*	0.36	0.71	0.81	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	21 Jul 2022	0356_SW034_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.35*	0.24	0.59	0.64	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_SW034_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.04	*1.35*	0.55	1.9	2.29	0.05	0.05	0.03	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_QC103_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	0.04	*1.33*	0.52	1.85	2.21	0.04	0.05	0.03	<0.02	<0.1	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_QC203_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	0.03	*1.1*	0.73	1.8	2.2	0.07	0.05	0.03	<0.02	<0.02	0.04	0.12	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
On-base - Sub-catchment A	SW034	17 Jul 2023	0356_SW034_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.02	*0.54*	0.39	0.93	1.06	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	09 Apr 2024	0356_SW034_2404091500	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.22*	0.28	0.5	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	13 Apr 2024	0356_SW034_2404132200	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.22*	0.25	0.47	0.5	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	17 Apr 2024	0356_SW034_2404172300	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.27*	0.26	0.53	0.55	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	18 Apr 2024	0356_SW034_2404180000	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.28*	0.27	0.55	0.57	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	22 Apr 2024	0356_SW034_2404221300	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.18*	0.18	0.36	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T6 - Historical Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	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	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2025 Recreational Water						10			2																										
PFAS NEMP 2025 Freshwater 99%						*19*	*0.00023*																												
Human Health EPC - Surface Water (AECOM, 2021)						*0.05*	*0.47*	*0.28*																											
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)						*0.1*	*1.26*																												
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)						*0.05*	*0.04*																												
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																														
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405042315	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.24*	0.34	0.58	0.64	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405042030	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.23*	0.29	0.52	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405041845	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.17*	0.17	0.34	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	05 May 2024	0356_SW034_2405050200	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.23*	0.32	0.55	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405060845	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.27*	0.37	0.64	0.7	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405060945	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.28*	0.36	0.64	0.68	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405061045	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.25*	0.35	0.6	0.66	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	02 Jul 2024	0356_SW034_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.02	*0.61*	0.55	1.16	1.33	0.03	0.03	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW034	17 Feb 2025	0356_SW034_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.39*	0.2	0.59	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	11 Apr 2019	0356_RESI_SW035_190411	Normal	ES1911618	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	11 Apr 2019	0356_QC140_190411	Field_D	ES1911619	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	19 Jul 2022	0356_SW035_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	18 Jan 2023	0356_SW035_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	18 Jul 2023	0356_SW035_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	24 Jan 2024	0356_SW035_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	03 Jul 2024	0356_SW035_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW035	18 Feb 2025	0356_SW035_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	11 Apr 2019	0356_RESI_SW036_190411	Normal	ES1911618	NSW_0356_PFAS	<0.01	*0.2*	0.09	0.29	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	19 Jul 2022	0356_SW036_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.01	*0.23*	0.15	0.38	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	18 Jan 2023	0356_SW036_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	0.03	*0.94*	*0.58*	1.52	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	18 Jul 2023	0356_SW036_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	0.02	*0.58*	*0.37*	0.95	1.11	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	24 Jan 2024	0356_SW036_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	0.03	*0.79*	*0.81*	1.6	2.02	0.06	0.05	0.02	<0.02	<0.1	0.06	0.16	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	03 Jul 2024	0356_SW036_240724	Normal	ES2422144	NSW_0356_PFASOMP_24	0.01	*0.46*	*0.36*	0.82	0.93	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North West	SW036	18 Feb 2025	0356_SW036_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	*0.42*	0.21	0.63	0.65	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	12 Apr 2019	0356_RESI_SW039_190412	Normal	ES1911621	NSW_0356_PFAS	0.02	*0.08*	<0.02	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	12 Apr 2019	0356_QC240_190412	Interlab_D	215778	NSW_0356_PFAS	0.02	*0.07*	<0.01	0.07	0.12	<0.01	<0.01	<0.01	<0.02	<0.02	0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - North East	SW039	20 Apr 2020	0356-RESI-SW039-200420	Normal	ES2013315	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	20 Jul 2022	0356_SW039_220720	Normal	ES2226119	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	18 Jan 2023	0356_SW039_230118	Normal	ES2301794	NSW_0356_PFASOMP_23	<0.01	*0.03*	0.01	0.04	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	18 Jul 2023	0356_SW039_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	24 Jan 2024	0356_SW039_240124	Normal	ES2402507	NSW_0356_PFASOMP_24	<0.01	*0.03*	<0.01	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	03 Jul 2024	0356_SW039_240703	Normal	ES2422145	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW039	18 Feb 2025	0356_SW039_250218	Normal	ES2504728	NSW_0356_PFASOMP_25	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	07 May 2019	0356_SW040_190507	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	21 Jul 2022	0356_SW040_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	17 Jan 2023	0356_SW040_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	18 Jul 2023	0356_SW040_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	23 Jan 2024	0356_SW040_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	04 Jul 2024	0356_SW040_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment C	SW040	17 Feb 2025	0356_SW040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	17 Apr 2019	0356_RESI_SW041_190417	Normal	ES1912501	NSW_0356_PFAS	0.02	*0.02*	<0.02	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	17 Apr 2019	0356_QC141_190417	Field_D	ES1912500	NSW_0356_PFAS	0.01	*0.02*	<0.02	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	22 Apr 2020	0356_RESI_SW041_200422	Normal	ES2013744	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	22 Apr 2020	0356_QC204_200422	Interlab_D	241483	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	0.03	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - North East	SW064	20 Jul 2022	0356_SW064_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	18 Jan 2023	0356_SW064_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	0.02	*0.06*	0.02	0.08	0.33	0.09	<0.02	<0.02	<0.02	<0.1	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	19 Jul 2023	0356_SW064_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	24 Jan 2024	0356_SW064_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	03 Jul 2024	0356_SW064_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - North East	SW064	19 Feb 2025	0356_SW064_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.04*	<0.01	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T6 - Historical Surface Water and Wastewater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2025 Recreational Water							10			2																										
PFAS NEMP 2025 Freshwater 99%							*19*	*0.00023*																												
Human Health EPC - Surface Water (AECOM, 2021)							*0.05*	*0.47*	*0.28*																											
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							*0.1*	*1.26*																												
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							*0.05*	*0.04*																												
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																														
Off-base - Singleton STP	SW065	17 Apr 2019	0356_RESI_SW042_190417	Normal	ES1912501	NSW_0356_PFAS	0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	20 Jul 2022	0356_SW065_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	20 Jul 2022	0356_QC101_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	20 Jul 2022	0356_QC201_220720	Interlab_D	301227	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.05	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - Singleton STP	SW065	18 Jan 2023	0356_SW065_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.01	*0.03*	<0.01	0.03	0.11	0.05	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	19 Jul 2023	0356_SW065_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	19 Jul 2023	0356_QC105_230719	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	19 Jul 2023	0356_QC205_230719	Interlab_D	328563-A	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
Off-base - Singleton STP	SW065	24 Jan 2024	0356_SW065_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	03 Jul 2024	0356_SW065_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW065	19 Feb 2025	0356_SW065_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW114	21 Jul 2022	0356_SW114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.01*	<0.01	0.01	0.03	<0.02	<0.02	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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment A	SW114	04 Jul 2024	0356_SW114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Boundary	SW115	21 Jul 2022	0356_SW115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.49*	0.33	0.82	0.86	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Boundary	SW115	02 Jul 2024	0356_SW115_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.03	*0.85*	0.68	1.53	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Boundary	SW116	21 Jul 2022	0356_SW116_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Boundary	SW116	04 Jul 2024	0356_SW116_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	19 Oct 2020	0356_SW553_201019	Normal	ES2036629	NSW_0356_PFAS	0.01	*0.25*	*0.28*	0.53	0.65	0.03	0.03	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	20 Jul 2022	0356_SW553_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.08*	0.07	0.15	0.15	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	18 Jan 2023	0356_SW553_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	0.01	*0.3*	0.2	0.5	0.73	<0.02	<0.02	<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	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	19 Jul 2023	0356_SW553_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	0.01	*0.22*	0.27	0.49	0.56	<0.02	0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	03 Jul 2024	0356_SW553_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.11*	0.14	0.25	0.25	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW553	19 Feb 2025	0356_SW553_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW555	21 Jul 2022	0356_SW555_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW555	17 Jul 2023	0356_SW555_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
On-base - Sub-catchment B	SW555	23 Jan 2024	0356_SW555_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW563	19 Jul 2023	0356_SW563_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW563	24 Jan 2024	0356_SW563_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW563	03 Jul 2024	0356_SW563_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
Off-base - Singleton STP	SW563	19 Feb 2025	0356_SW563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
µg/L = micrograms per litre
STP = Sewage Treatment Plant

Table T7 - Historical Sediment Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Human Health EPC - Sediment (AECOM, 2021)							0.0009	0.0128	0.0017																											
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							0.0003	0.0613																												
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							0.0002	0.0028																												
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
On-base - Sub-catchment A	SD002	08 Oct 2018	0356_SD002_181008	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.0024	0.0004	0.0028	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	28 Feb 2019	0356_SD002_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	24 Apr 2019	0356_SD002_190424	Normal	ES1912502	NSW_0356_PFAS	<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	16 Apr 2020	0356_SD002_200416	Normal	ES2013148	NSW_0356_PFAS	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_SD002_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0428	0.0018	0.0446	0.0448	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_QC105_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0345	0.0017	0.0362	0.0372	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_QC205_220721	Interlab_D	301227	NSW_0356_PFASOMP_22	<0.0001	0.037	0.0017	0.039	0.04	<0.0001	<0.0001	0.0002	0.0003	0.0002	0.0002	0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment A	SD002	17 Jan 2023	0356_SD002_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.006	0.0018	0.0078	0.0088	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	17 Jul 2023	0356_SD002_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0013	0.0003	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	23 Jan 2024	0356_SD002_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0038	0.0005	0.0043	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	02 Jul 2024	0356_SD002_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.0002	0.0087	0.0016	0.0103	0.011	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD002	17 Feb 2025	0356_SD002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0045	0.0006	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	05 Oct 2018	0356_SD003_181005	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.0009	<0.0002	0.0009	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	28 Feb 2019	0356_SD003_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.0013	<0.0002	0.0013	0.0013	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	17 Apr 2019	0356_SD003_190417	Normal	ES1912500	NSW_0356_PFAS	<0.0002	0.0334	0.0035	0.0369	0.0386	0.0002	<0.0002	<0.0002	0.0004	<0.001	0.0003	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	21 Jul 2022	0356_SD003_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0026	<0.0002	0.0026	0.0026	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	17 Jan 2023	0356_SD003_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_SD003_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_QC101_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_QC201_230717	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.0001	0.0032	0.0002	0.0034	0.0034	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0005	<0.005	<0.002	<0.002	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.002	<0.005	<0.0002	<0.01	<0.001	<0.0004	<0.005
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_SD003_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_QC104_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_QC204_240123	Interlab_D	342545	NSW_0356_PFASOMP_24	<0.0001	0.0011	<0.0001	0.0011	0.0011	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment A	SD003	02 Jul 2024	0356_SD003_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0045	0.0006	0.0051	0.0053	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD003	18 Feb 2025	0356_SD003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0041	0.0004	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	12 Oct 2018	0356_SD004_181012	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	17 Jan 2019	0356_NSW1164_SD004_190117	Normal	ES1902070	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	05 Mar 2019	0356_SD004_190305	Normal	ES1906973	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	18 Apr 2019	0356_SD004_190418	Normal	ES1912500	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	18 Apr 2020	0356_SD004_200418	Normal	ES2013148	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	19 Jul 2022	0356_SD004_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	19 Jan 2023	0356_SD004_230119	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	19 Jul 2023	0356_SD004_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	24 Jan 2024	0356_SD004_240124	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_SD004_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_QC104_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.0001	0.0002	<0.0001	0.0002	0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_SD004_250219	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_QC103_250219	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_QC203_250219	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Dochra Airfield	SD005	12 Oct 2018	0356_SD005_181012	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_NSW1164_SD005_190118	Normal	ES1902070	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_SD_QC100_190118	Field_D	ES1902070	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_SD_QC200_190118	Interlab_D	210062	NSW_0356_PFAS	<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Dochra Airfield	SD005	05 Mar 2019	0356_SD005_190305	Normal	ES1906973	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	18 Apr 2019	0356_SD005_190418	Normal	ES1912500	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	18 Apr 2019	0356_QC241_SD_190418	Interlab_D	216434	NSW_0356_PFAS	<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Dochra Airfield	SD005	18 Apr 2020	0356_SD005_200418	Normal	ES2013148	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	19 Jul 2022	0356_SD005_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0018	<0.0002	0.0018	0.0018	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	19 Jan 2023	0356_SD005_230119	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Dochra Airfield	SD005	19 Jul 2023	0356_SD005_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0009

Table T7 - Historical Sediment Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Human Health EPC - Sediment (AECOM, 2021)							0.0009	0.0128	0.0017																											
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							0.0003	0.0613																												
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							0.0002	0.0028																												
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
On-base - Sub-catchment A	SD032	17 Feb 2025	0356_SD032_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0266	0.0013	0.0279	0.0288	<0.0002	<0.0002	0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	12 Apr 2019	0356_RESI_SD039_190412	Normal	ES1911621	NSW_0356_PFAS	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	12 Apr 2019	0356_QC240_190412	Interlab_D	215778	NSW_0356_PFAS	0.0002	0.0019	<0.0001	0.0019	0.002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
Off-base - North East	SD039	20 Apr 2020	0356_RESI_SD039_200420	Normal	ES2013315	NSW_0356_PFAS	0.0003	0.0036	<0.0002	0.0036	0.0039	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	20 Jul 2022	0356_SD039_220720	Normal	ES2226119	NSW_0356_PFASOMP_22	<0.0002	0.0038	<0.0002	0.0038	0.0038	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	18 Jan 2023	0356_SD039_230118	Normal	ES2301794	NSW_0356_PFASOMP_23	<0.0010	0.0029	<0.0010	0.0029	0.0029	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025
Off-base - North East	SD039	18 Jul 2023	0356_SD039_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	24 Jan 2024	0356_SD039_240124	Normal	ES2402507	NSW_0356_PFASOMP_24	<0.0002	0.0036	<0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	03 Jul 2024	0356_SD039_240703	Normal	ES2422145	NSW_0356_PFASOMP_24	<0.0002	0.004	<0.0002	0.004	0.004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD039	18 Feb 2025	0356_SD039_250218	Normal	ES2504728	NSW_0356_PFASOMP_25	<0.0002	0.0041	<0.0002	0.0041	0.0041	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	07 May 2019	0356_SD040_190507	Normal	ES1913967	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	21 Jul 2022	0356_SD040_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	17 Jan 2023	0356_SD040_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	18 Jul 2023	0356_SD040_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	23 Jan 2024	0356_SD040_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	04 Jul 2024	0356_SD040_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment C	SD040	17 Feb 2025	0356_SD040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	17 Apr 2019	0356_RESI_SD041_190417	Normal	ES1912501	NSW_0356_PFAS	<0.0002	0.0034	<0.0002	0.0034	0.0034	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	17 Apr 2019	0356_QC141_190417	Field_D	ES1912500	NSW_0356_PFAS	<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	22 Apr 2020	0356_RESI_SD041_200422	Normal	ES2013744	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	22 Apr 2020	0356_QC203_200422	Interlab_D	241483	NSW_0356_PFAS	<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0004	<0.0004	<0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002	<0.0004	<0.002	<0.002	<0.0004	<0.01
Off-base - North East	SD046	20 Jul 2022	0356_SD046_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.0002	0.0034	0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	18 Jan 2023	0356_SD046_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	19 Jul 2023	0356_SD046_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	24 Jan 2024	0356_SD046_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.0002	0.007	<0.0002	0.007	0.007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	03 Jul 2024	0356_SD046_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North East	SD046	19 Feb 2025	0356_SD046_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0024	<0.0002	0.0024	0.0024	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	17 Apr 2019	0356_RESI_SD042_190417	Normal	ES1912501	NSW_0356_PFAS	<0.0002	0.0047	<0.0002	0.0047	0.0049	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	20 Jul 2022	0356_SD047_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.0002	0.0075	<0.0002	0.0075	0.0075	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	20 Jul 2022	0356_QC100_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0081	0.0002	0.0083	0.0085	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	20 Jul 2022	0356_QC200_220720	Interlab_D	301227	NSW_0356_PFASOMP_22	0.0002	0.0094	0.0002	0.0096	0.0099	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
Off-base - Singleton STP	SD047	18 Jan 2023	0356_SD047_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.0002	0.0048	0.0003	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	19 Jul 2023	0356_SD047_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	24 Jan 2024	0356_SD047_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	03 Jul 2024	0356_SD047_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD047	19 Feb 2025	0356_SD047_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	11 Apr 2019	0356_RESI_SD035_190411	Normal	ES1911618	NSW_0356_PFAS	<0.0002	0.0012	0.0003	0.0015	0.0015	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	11 Apr 2019	0356_QC140_190411	Field_D	ES1911619	NSW_0356_PFAS	<0.0002	0.0017	0.0003	0.002	0.002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	19 Jul 2022	0356_SD052_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.0002	0.0009	<0.0002	0.0009	0.0019	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	18 Jan 2023	0356_SD052_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	18 Jul 2023	0356_SD052_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	24 Jan 2024	0356_SD052_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	03 Jul 2024	0356_SD052_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD052	18 Feb 2025	0356_SD052_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	08 Oct 2018	0356_SMA13_SD_181008	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.002	<0.0002	0.002	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	28 Feb 2019	0356_SMA13__SD_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.0226	0.0011	0.0237	0.0237	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	24 Apr 2019	0356_SMA13_SD_190424	Normal	ES1912502	NSW_0356_PFAS	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	16 Apr 2020	0356_SMA13_SD_200416	Normal	ES2013148	NSW_0356_PFAS	<0.0002	0.0118	<0.0002	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	16 Apr 2020	0356_QC102_200416	Field_D	ES2013148	NSW_0356_PFAS	<0.0002	0.0613	0.0004	0.0617	0.0617	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	21 Jul 2022	0356_SD053_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0043	0.0002	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD053	17 Jan 2023	0356_SD053_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0051	0.0004	0.0055	0.0055	<0.0002	<0.0002	<0.0002

Table T7 - Historical Sediment Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Human Health EPC - Sediment (AECOM, 2021)							0.0009	0.0128	0.0017																											
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							0.0003	0.0613																												
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							0.0002	0.0028																												
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																														
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_SD055_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.002	<0.0002	0.002	0.0038	<0.0002	<0.0002	<0.0002	0.0018	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_QC100_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0034	<0.0002	0.0034	0.0064	<0.0002	<0.0002	<0.0002	0.0028	<0.001	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_QC200_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.0001	0.002	<0.0001	0.002	0.003	<0.0001	<0.0001	<0.0001	0.001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_SD055_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0009	<0.0002	0.0009	0.0013	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_QC104_230718	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_QC204_230718	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.0001	0.0009	<0.0001	0.0009	0.0009	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_SD055_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.005	<0.0002	0.005	0.0067	<0.0002	<0.0002	<0.0002	0.0014	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_QC101_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0049	<0.0002	0.0049	0.0065	<0.0002	<0.0002	<0.0002	0.0013	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_QC201_240123	Interlab_D	342545	NSW_0356_PFASOMP_24	<0.0001	0.003	<0.0001	0.003	0.0049	<0.0001	<0.0001	<0.0001	0.002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment B	SD055	02 Jul 2024	0356_SD055_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0039	0.0004	0.0043	0.0047	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment B	SD055	17 Feb 2025	0356_SD055_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0039	<0.0002	0.0039	0.0055	<0.0002	<0.0002	<0.0002	0.0014	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	08 Oct 2018	0356_SMA8_SD_181008	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.0024	<0.0002	0.0024	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	28 Feb 2019	0356_SMA8_SD_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.0066	0.0005	0.0071	0.0071	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	24 Apr 2019	0356_SMA8_SD_190424	Normal	ES1912502	NSW_0356_PFAS	<0.0002	0.0048	0.0004	0.0052	0.0052	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	21 Jul 2022	0356_SD065_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_SD065_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0006	<0.0002	0.0006	0.0006	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_QC102_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_QC202_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.0001	0.0006	0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Sub-catchment A	SD065	17 Jul 2023	0356_SD065_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	23 Jan 2024	0356_SD065_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0064	0.0007	0.0071	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	02 Jul 2024	0356_SD065_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0095	0.0019	0.0114	0.0114	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD065	17 Feb 2025	0356_SD065_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0107	0.0011	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	16 Nov 2018	0356_RESI_SD013_181116	Normal	ES1834282	NSW_0356_PFAS	<0.0002	0.0135	0.0024	0.0159	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	20 Apr 2020	0356_RESI_SD013_200420	Normal	ES2013314	NSW_0356_PFAS	<0.0002	0.0111	0.0013	0.0124	0.0124	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	20 Apr 2020	0356_QC103_200420	Field_D	ES2013314	NSW_0356_PFAS	<0.0002	0.0118	0.0014	0.0132	0.0132	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	19 Jul 2022	0356_SD080_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	18 Jan 2023	0356_SD080_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.0002	0.0189	0.0021	0.021	0.0213	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	18 Jul 2023	0356_SD080_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0235	0.0018	0.0253	0.0253	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	24 Jan 2024	0356_SD080_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.0002	0.0045	0.0003	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	03 Jul 2024	0356_SD080_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.0002	0.0205	0.0014	0.0219	0.0219	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - North West	SD080	18 Feb 2025	0356_SD080_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0033	0.0003	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD114	21 Jul 2022	0356_SD114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD114	17 Jan 2023	0356_SD114_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0023	<0.0002	0.0023	0.0023	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD114	17 Jul 2023	0356_SD114_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0011	<0.0002	0.0011	0.0011	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD114	23 Jan 2024	0356_SD114_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0092	0.0002	0.0094	0.0094	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Sub-catchment A	SD114	04 Jul 2024	0356_SD114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	21 Jul 2022	0356_SD115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0457	0.0023	0.048	0.0496	<0.0002	<0.0002	<0.0002	0.001	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	17 Jan 2023	0356_SD115_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.0003	0.0351	0.0023	0.0374	0.0391	<0.0002	<0.0002	<0.0002	0.0007	<0.001	0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	17 Jul 2023	0356_SD115_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0226	0.0013	0.0239	0.0242	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	23 Jan 2024	0356_SD115_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0114	0.0012	0.0126	0.0129	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	02 Jul 2024	0356_SD115_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0362	0.0009	0.0371	0.0371	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	17 Feb 2025	0356_SD115_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0026	0.0003	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	17 Feb 2025	0356_QC100_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0036	0.0002	0.0038	0.0038	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD115	17 Feb 2025	0356_QC200_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.0001	0.0044	0.0003	0.0047	0.0047	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
On-base - Boundary	SD116	21 Jul 2022	0356_SD116_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD116	17 Jan 2023	0356_SD116_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD116	17 Jul 2023	0356_SD116_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD116	23 Jan 2024	0356_SD116_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0046	0.0002	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD116	04 Jul 2024	0356_SD116_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0016	0.0004	0.002	0.002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
On-base - Boundary	SD116	18 Feb 2025	0356_SD116_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0041	0.0003	0.0044	0.0044	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD539	19 Oct 2020	0356_SD539_201019	Normal	ES2036629	NSW_0356_PFAS	<0.0002	0.0088	0.0008	0.0096	0.0096	<0.0002

Table T7 - Historical Sediment Analytical Results

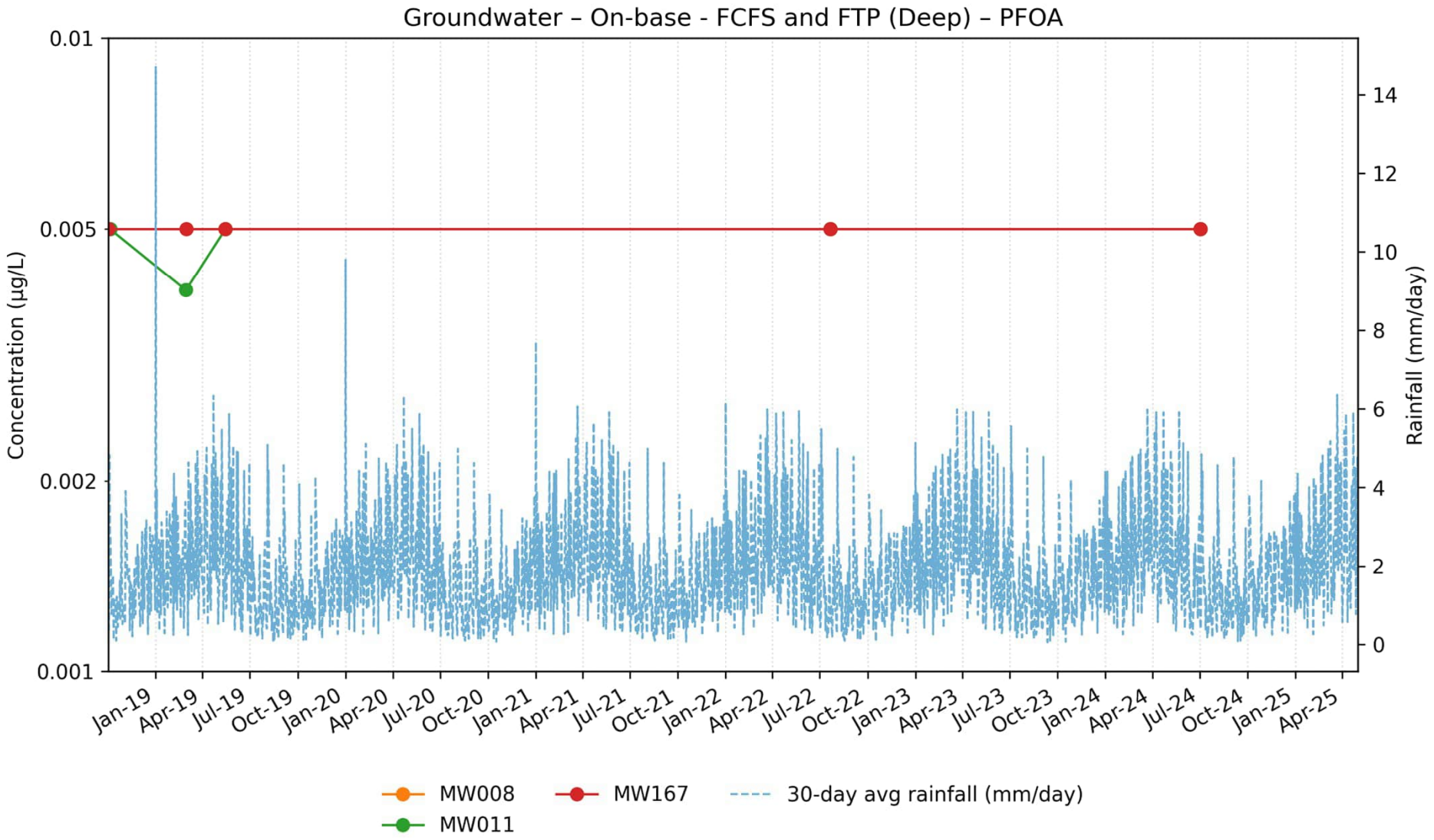
							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Human Health EPC - Sediment (AECOM, 2021)							0.0009	0.0128	0.0017																										
Ecological EPC - Doughboy Hollow Creek Catchment (AECOM, 2021)							0.0003	0.0613																											
Ecological EPC - Mudies/Emigrant Creek Catchment (AECOM, 2021)							0.0002	0.0028																											
Area	Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
Off-base - Singleton STP	SD563	24 Jan 2024	0356_SD563_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	0.0002	0.0168	<0.0002	0.0168	0.017	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD563	03 Jul 2024	0356_SD563_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	0.0029	0.106	0.0012	0.107	0.117	<0.0002	<0.0002	0.0006	0.0006	<0.001	<0.0002	<0.0002	0.0003	0.001	0.0008	0.0003	0.0003	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0021	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005
Off-base - Singleton STP	SD563	19 Feb 2025	0356_SD563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	0.0002	0.0241	0.0003	0.0244	0.0263	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0015	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
mg/kg = milligrams per kilogram
STP = Sewage Treatment Plant

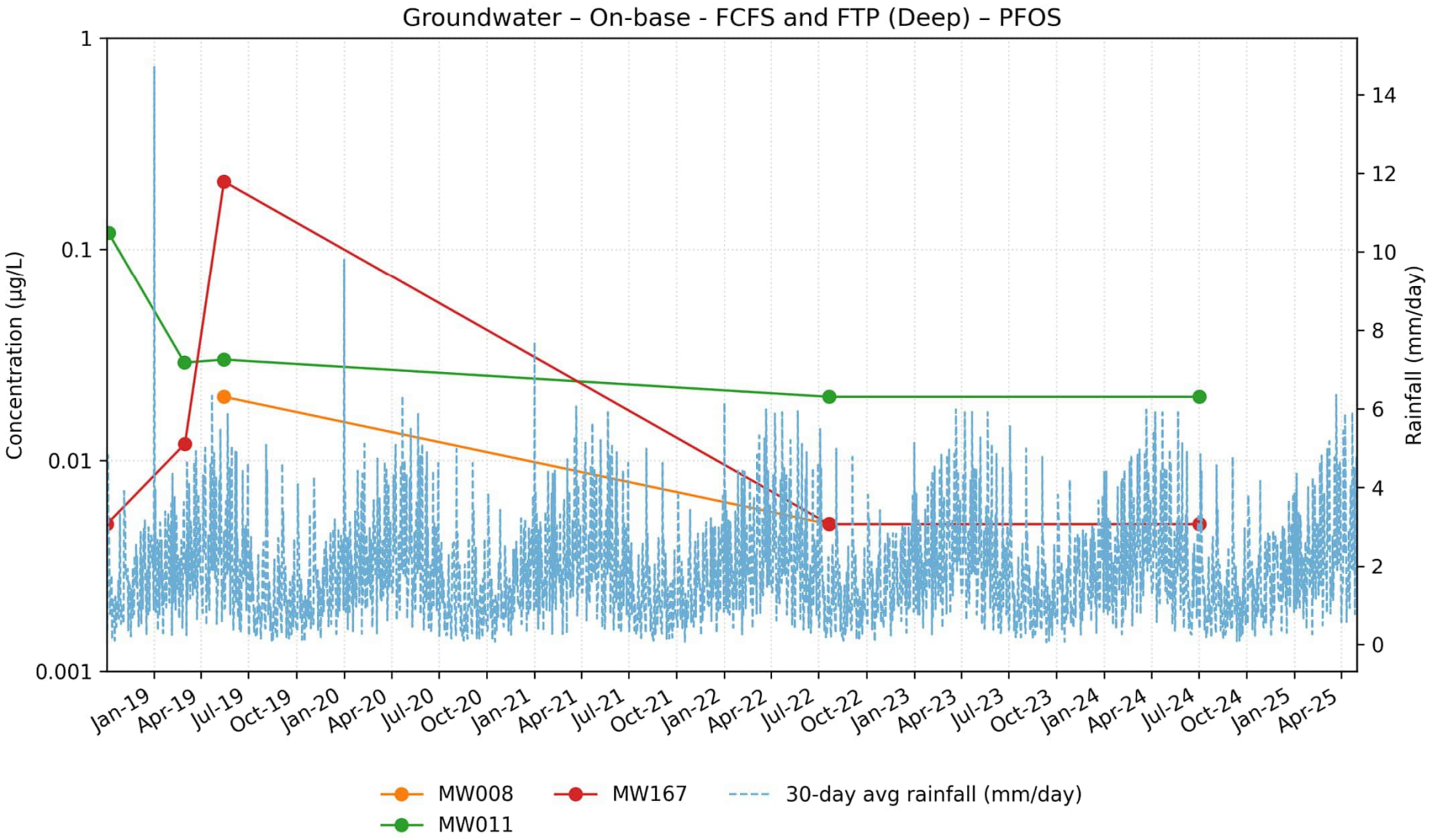
Appendix C

Temporal Trend Graphs and Mann Kendall Analysis

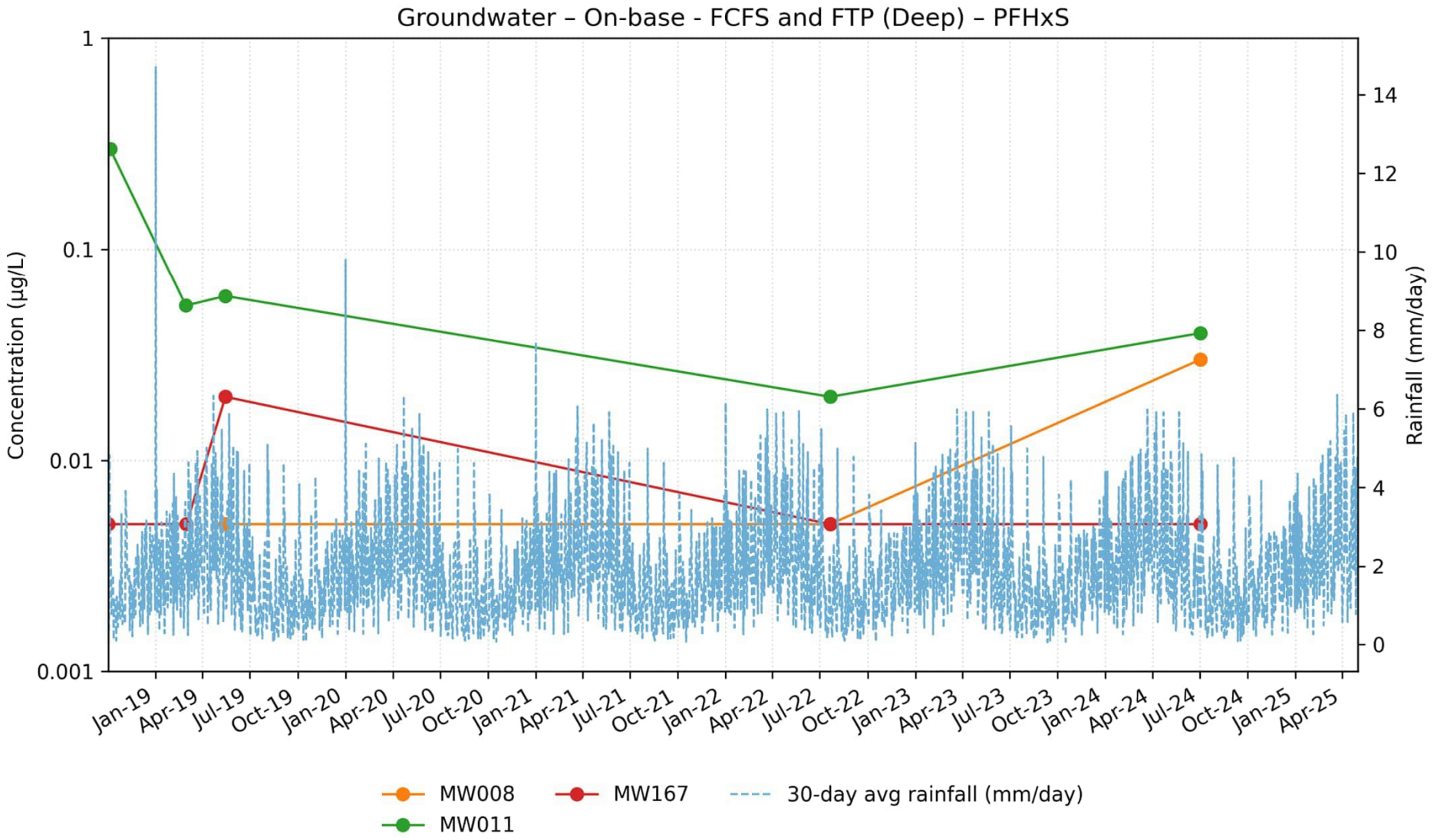
Graph G01 - Temporal Trend



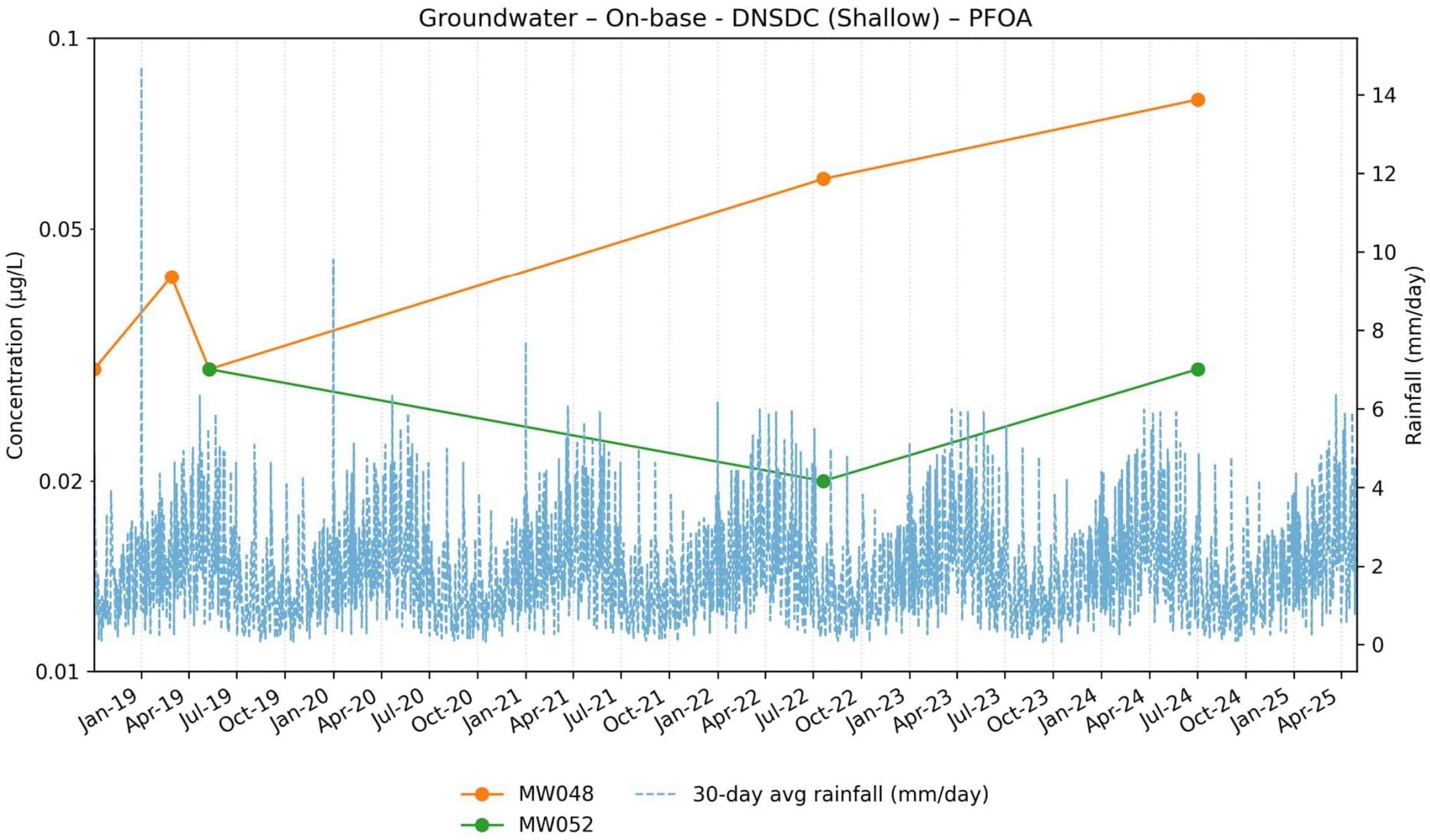
Graph G02 - Temporal Trend



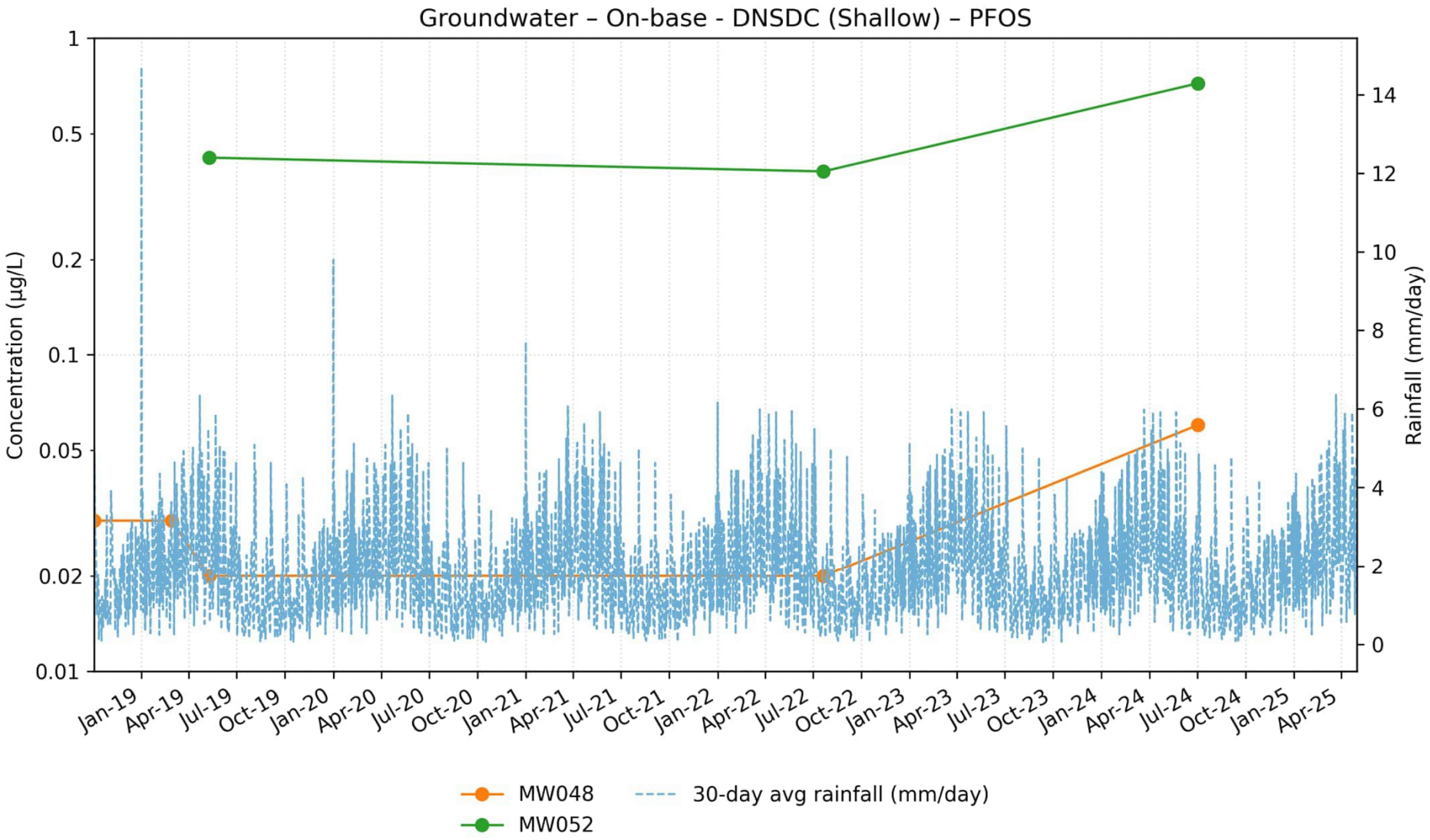
Graph G03 - Temporal Trend



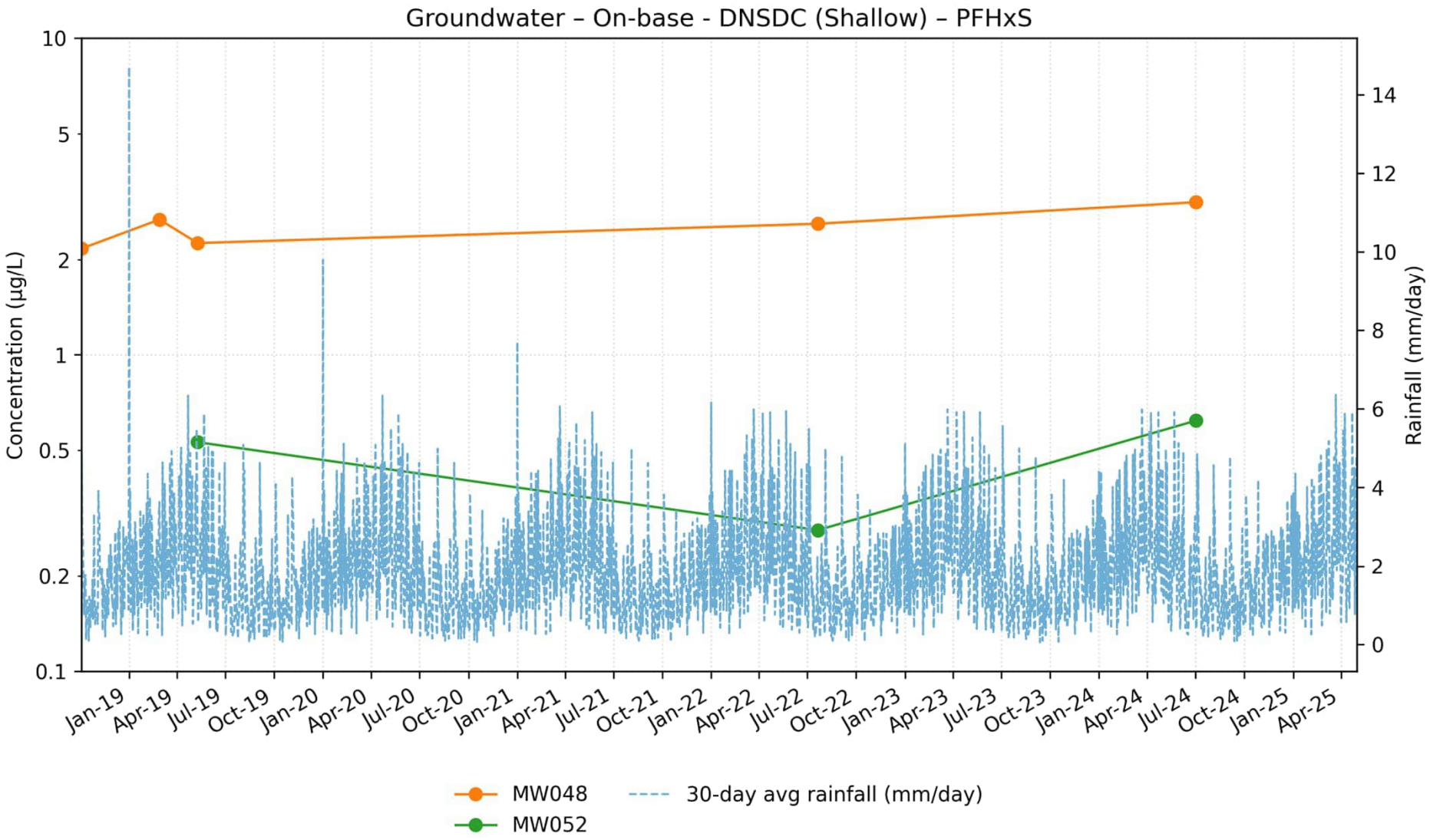
Graph G04 - Temporal Trend



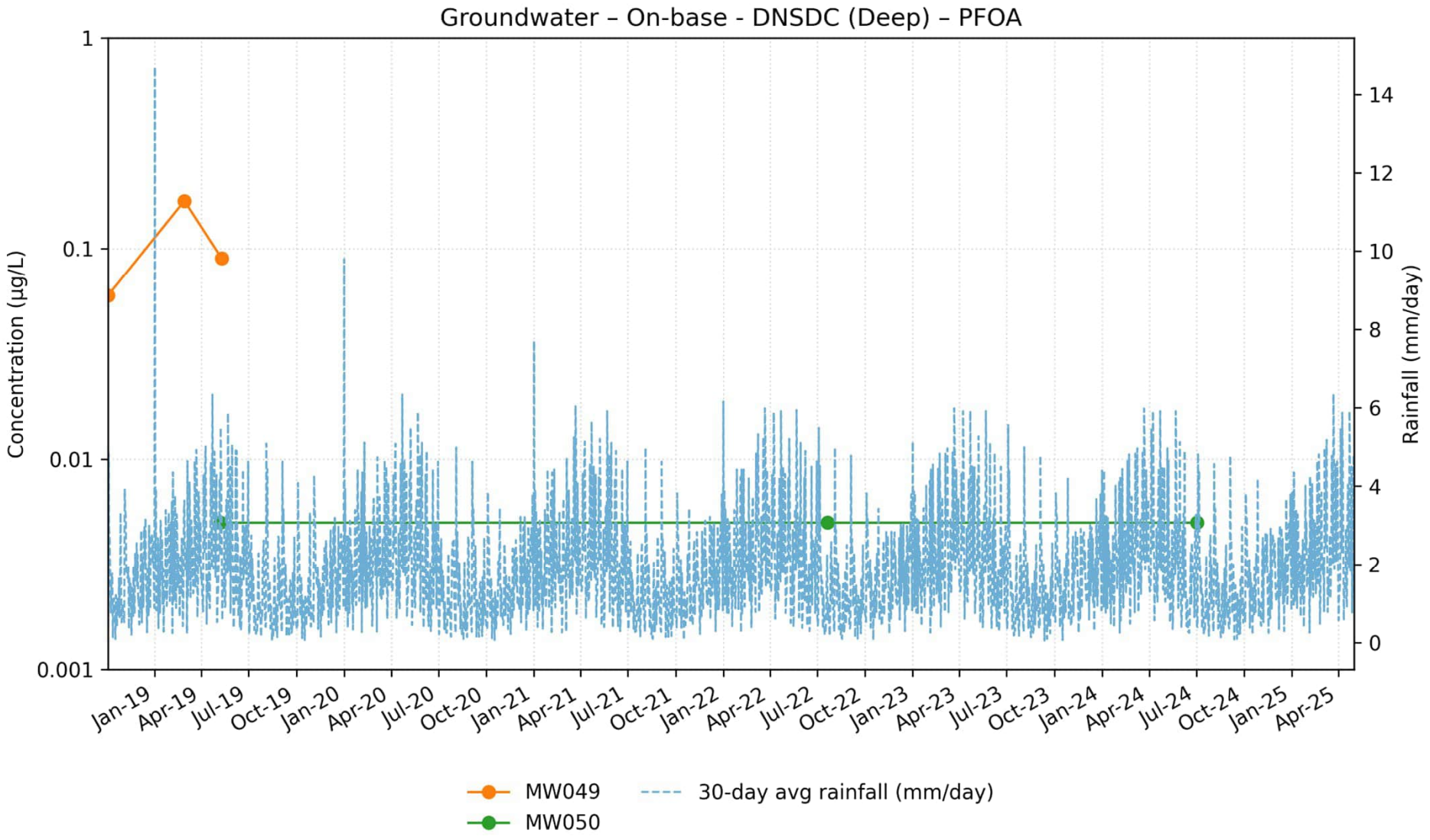
Graph G05 - Temporal Trend



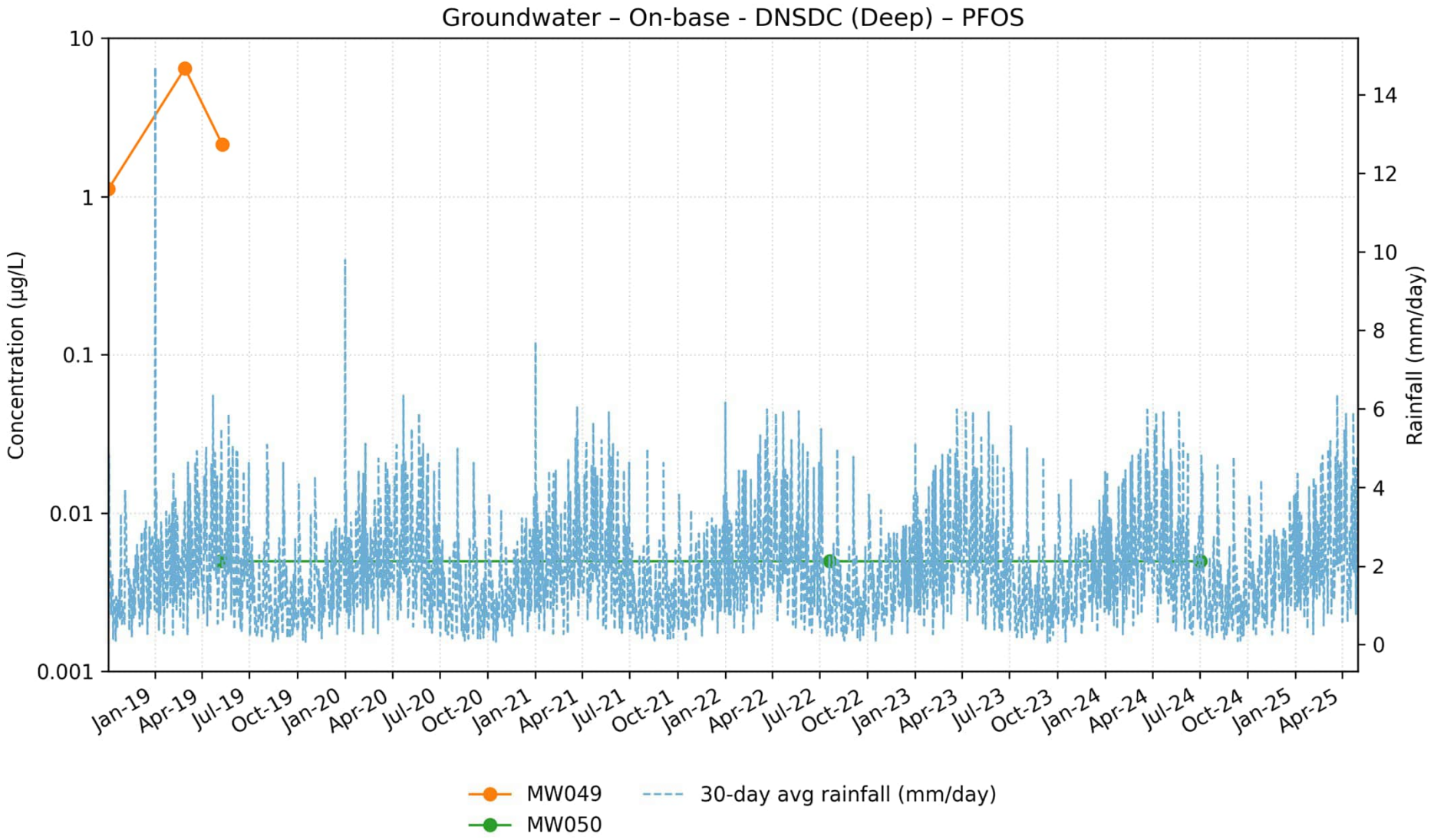
Graph G06 - Temporal Trend



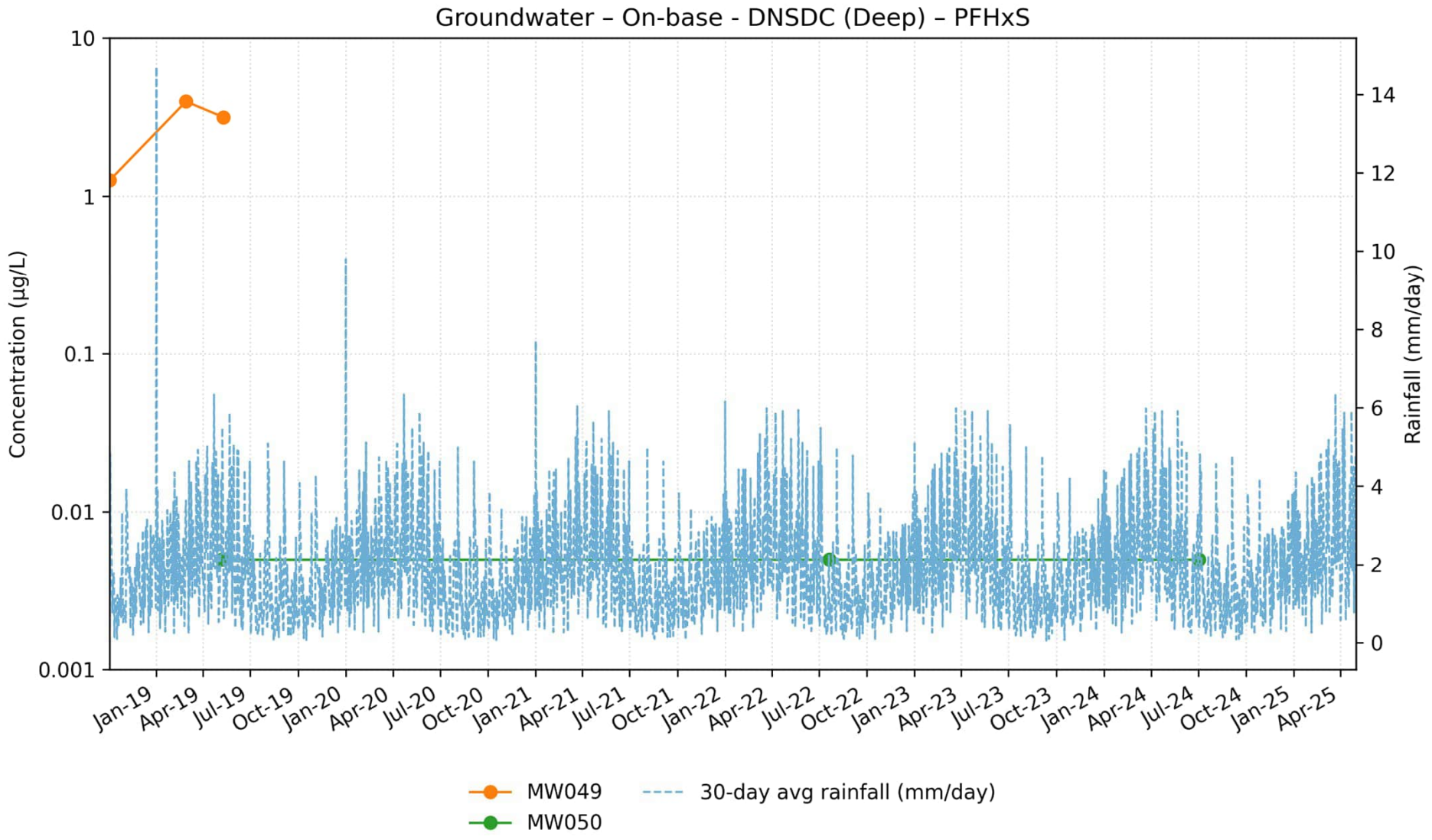
Graph G07 - Temporal Trend



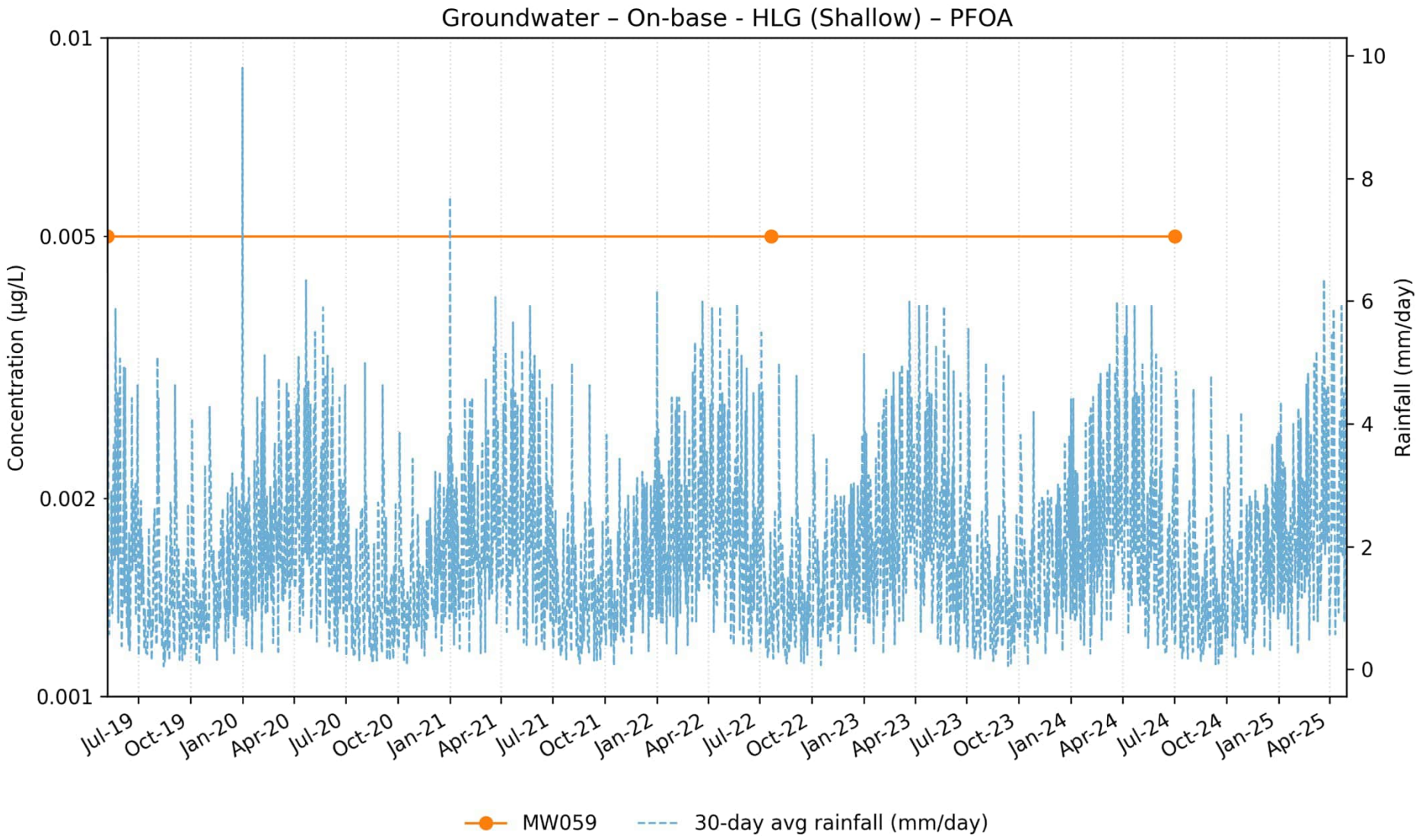
Graph G08 - Temporal Trend



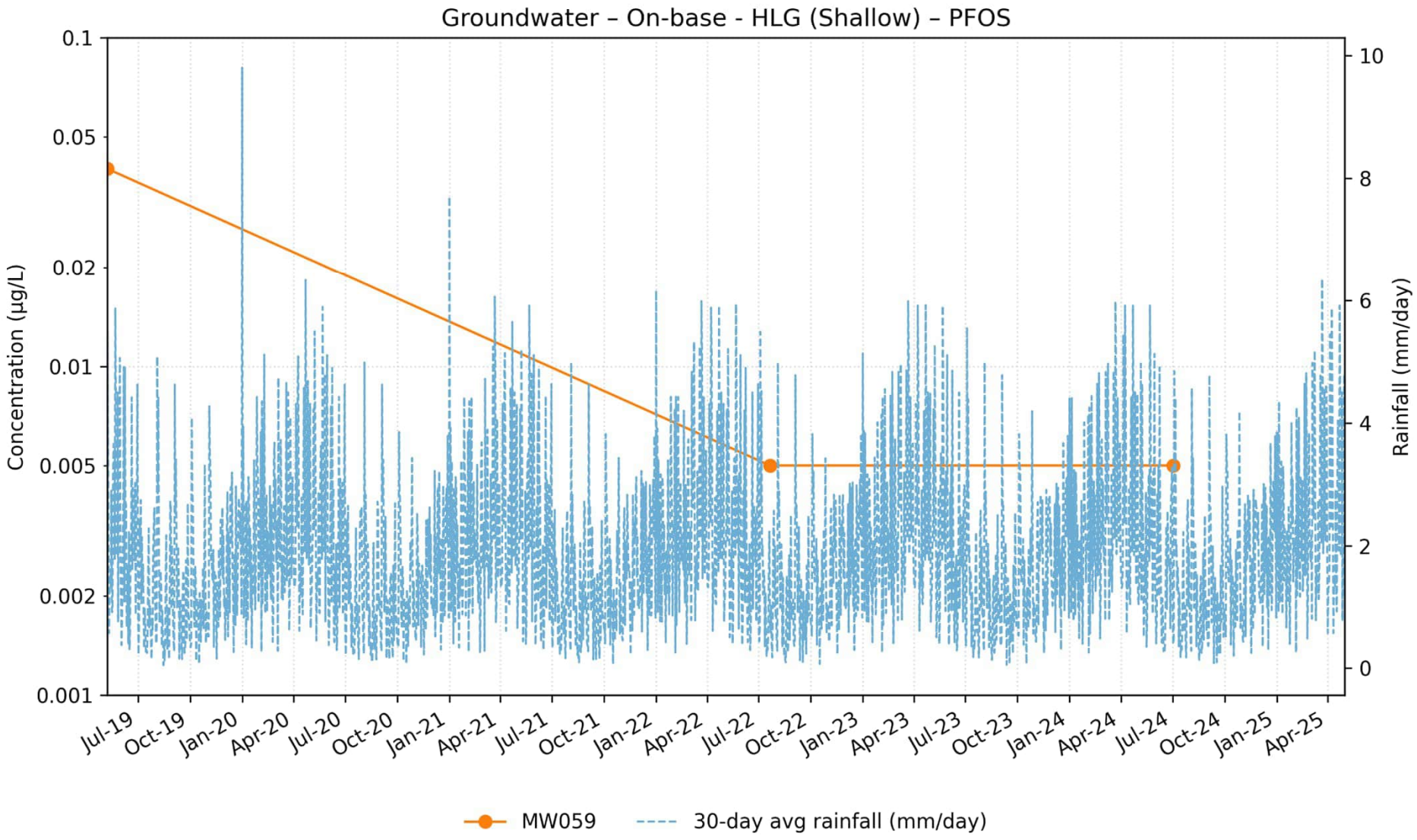
Graph G09 - Temporal Trend



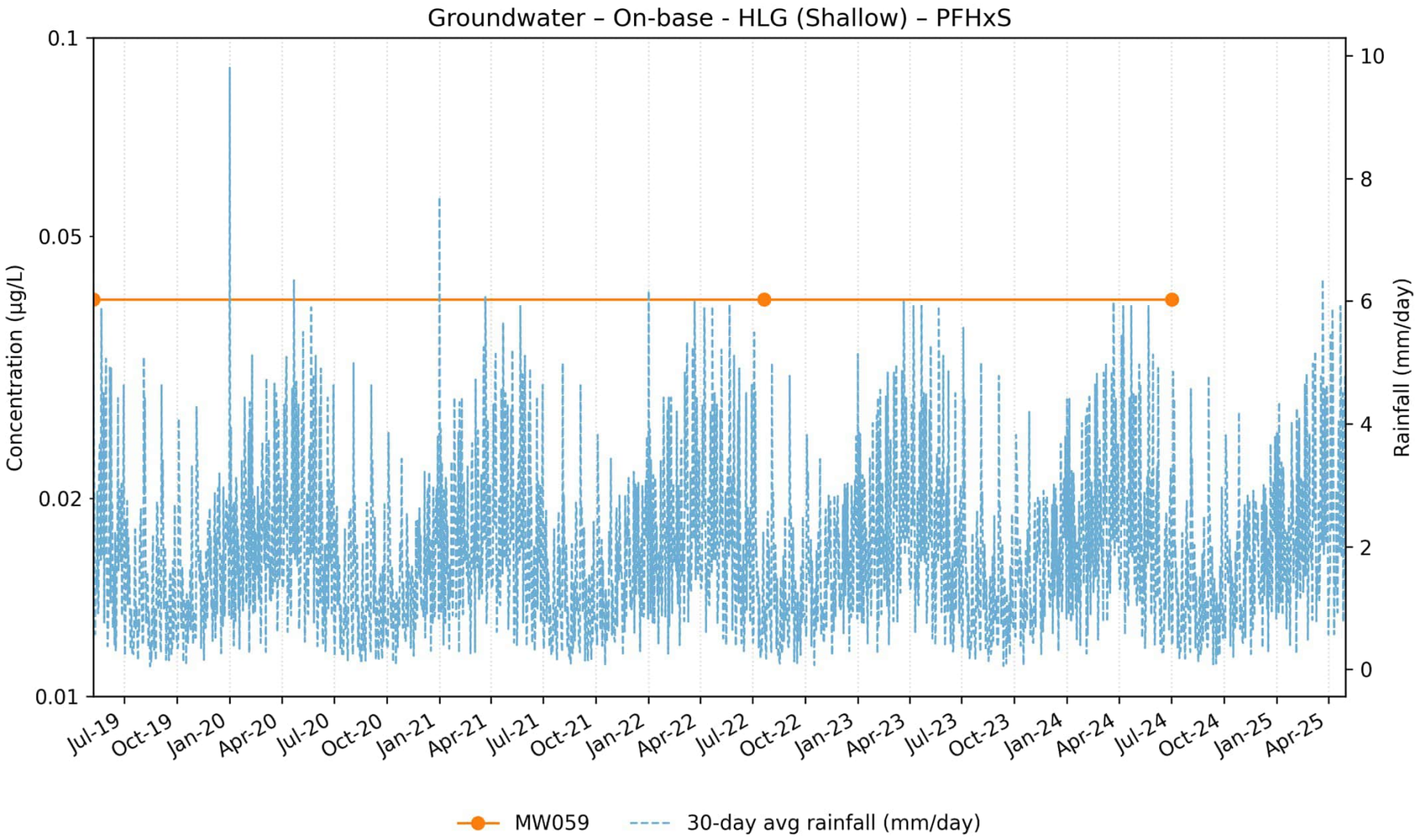
Graph G10 - Temporal Trend



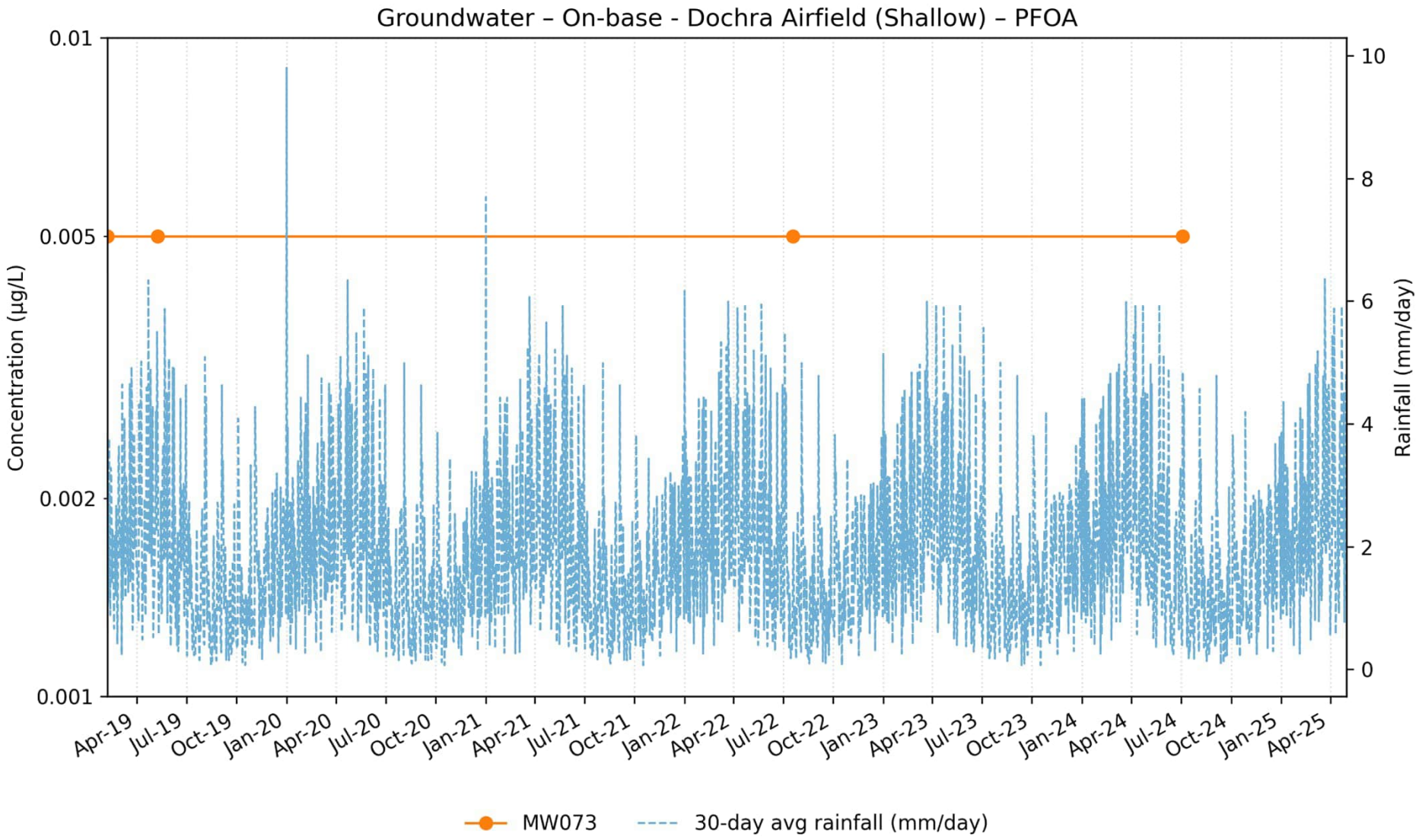
Graph G11 - Temporal Trend



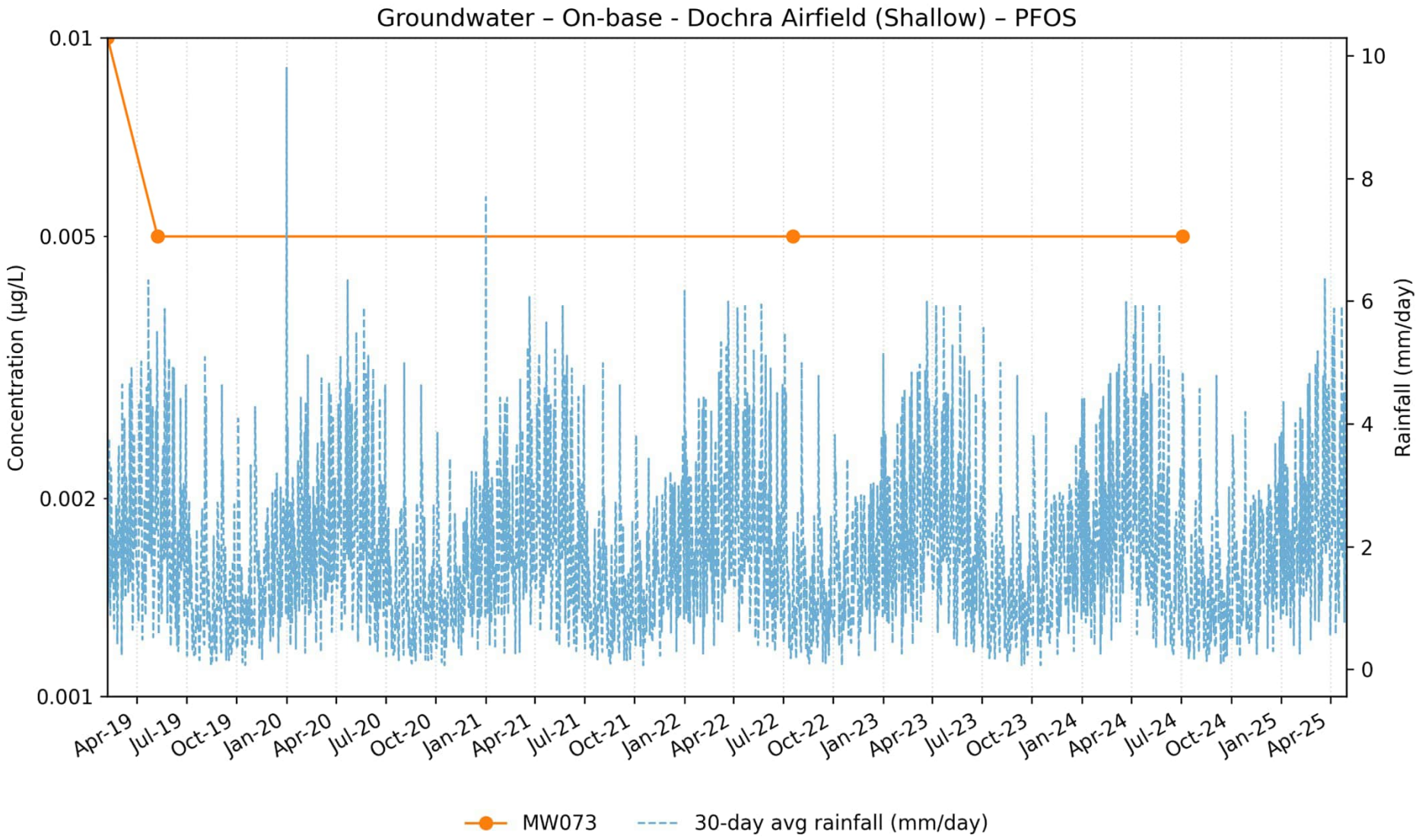
Graph G12 - Temporal Trend



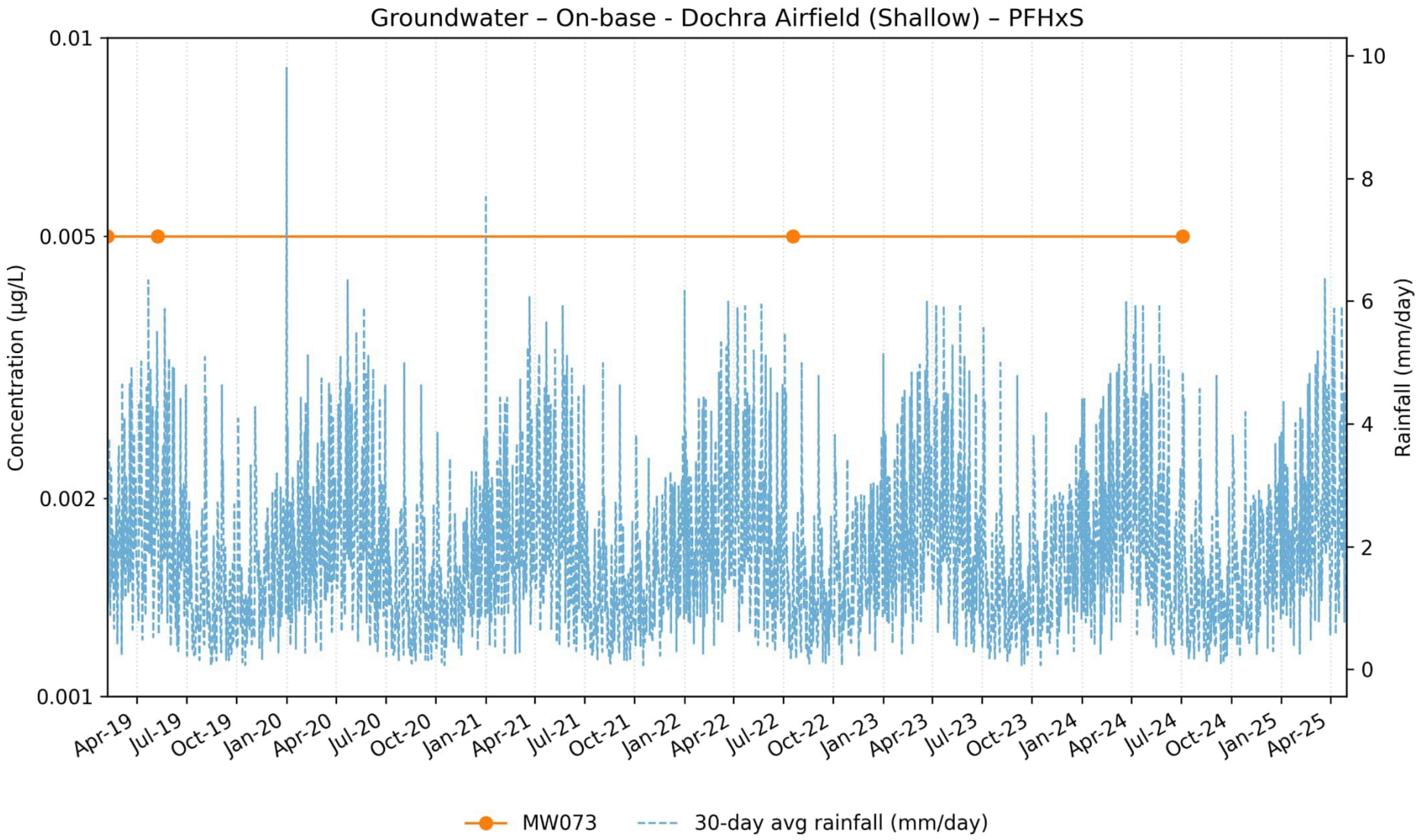
Graph G13 - Temporal Trend



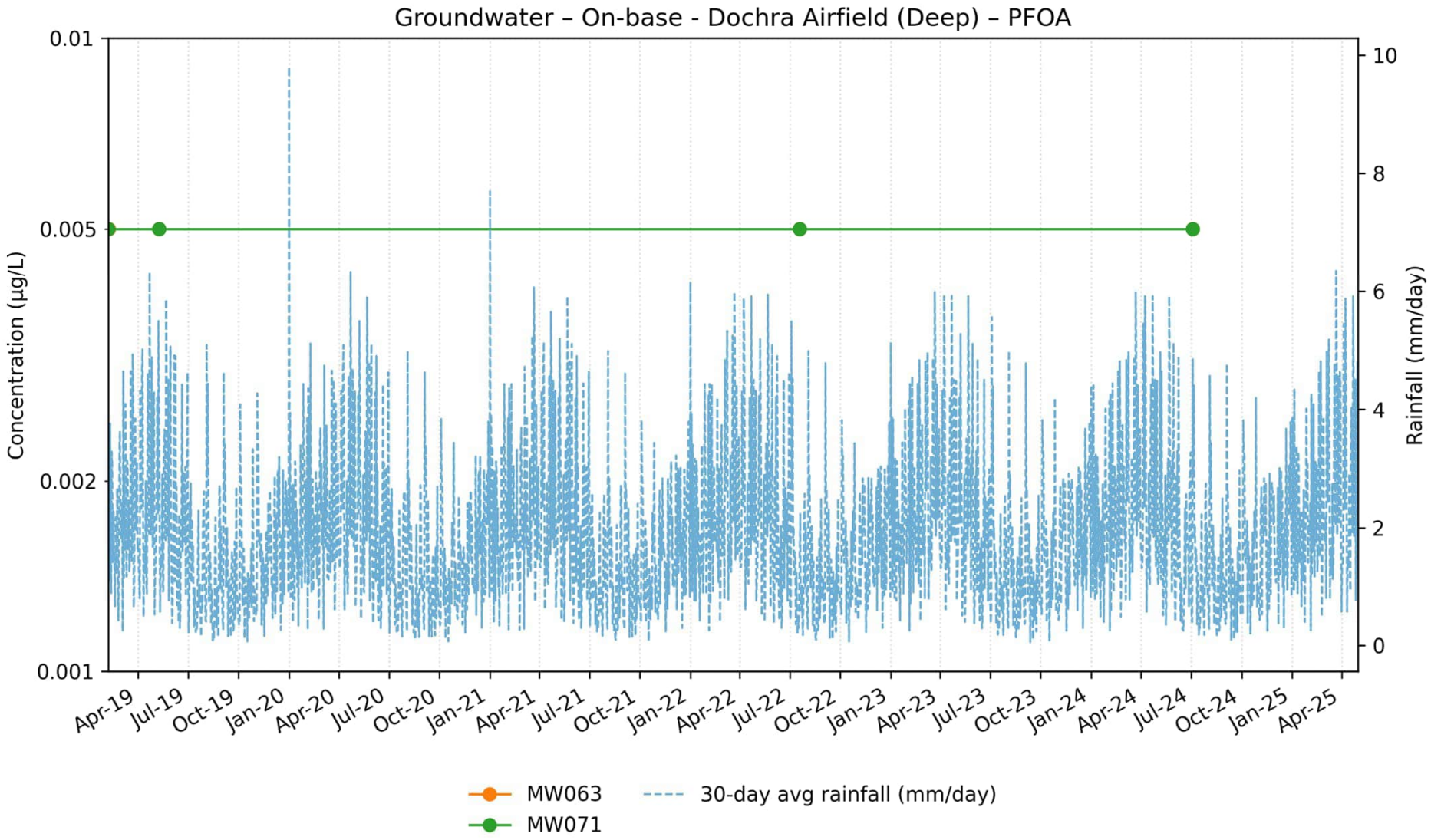
Graph G14 - Temporal Trend



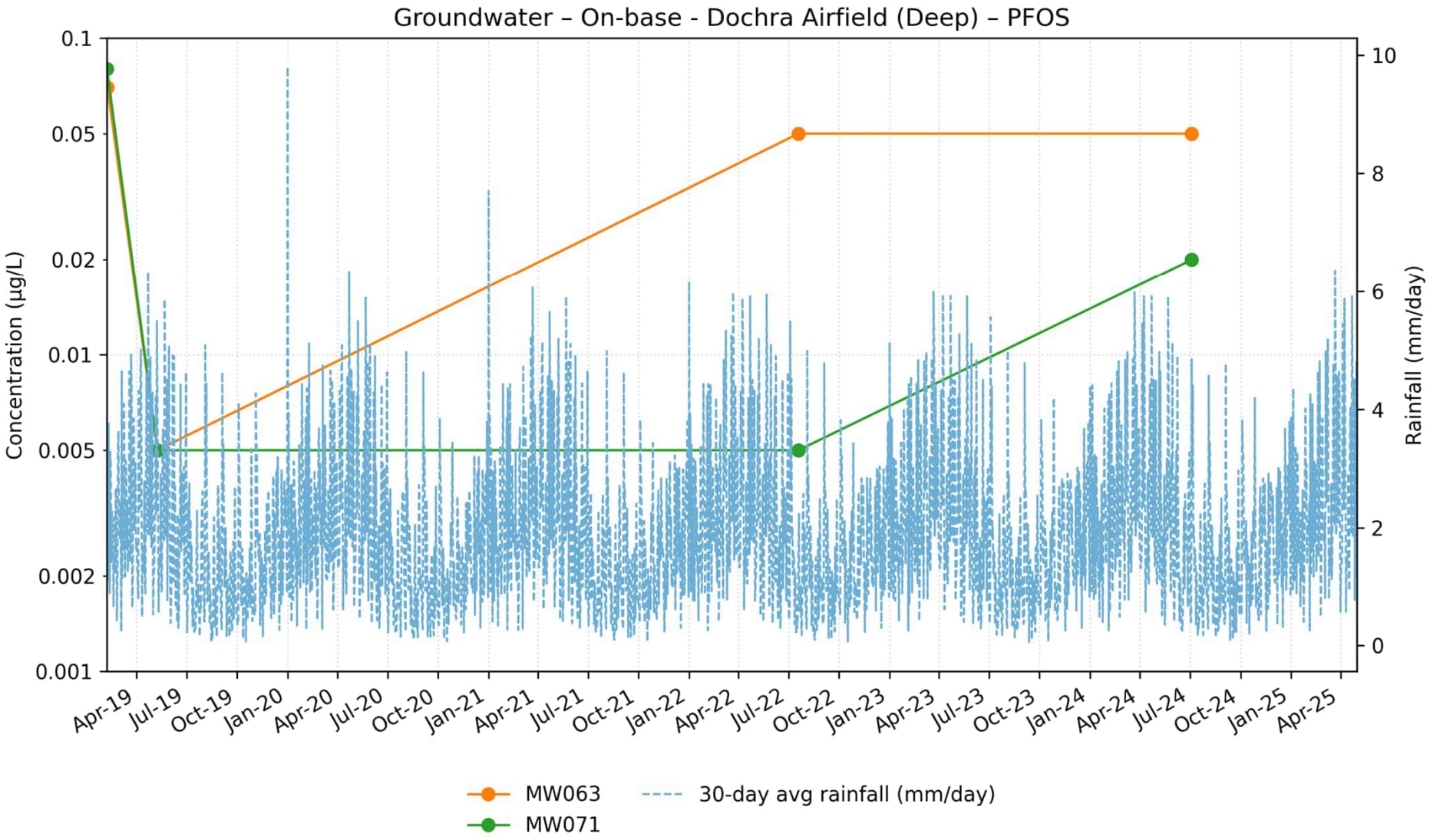
Graph G15 - Temporal Trend



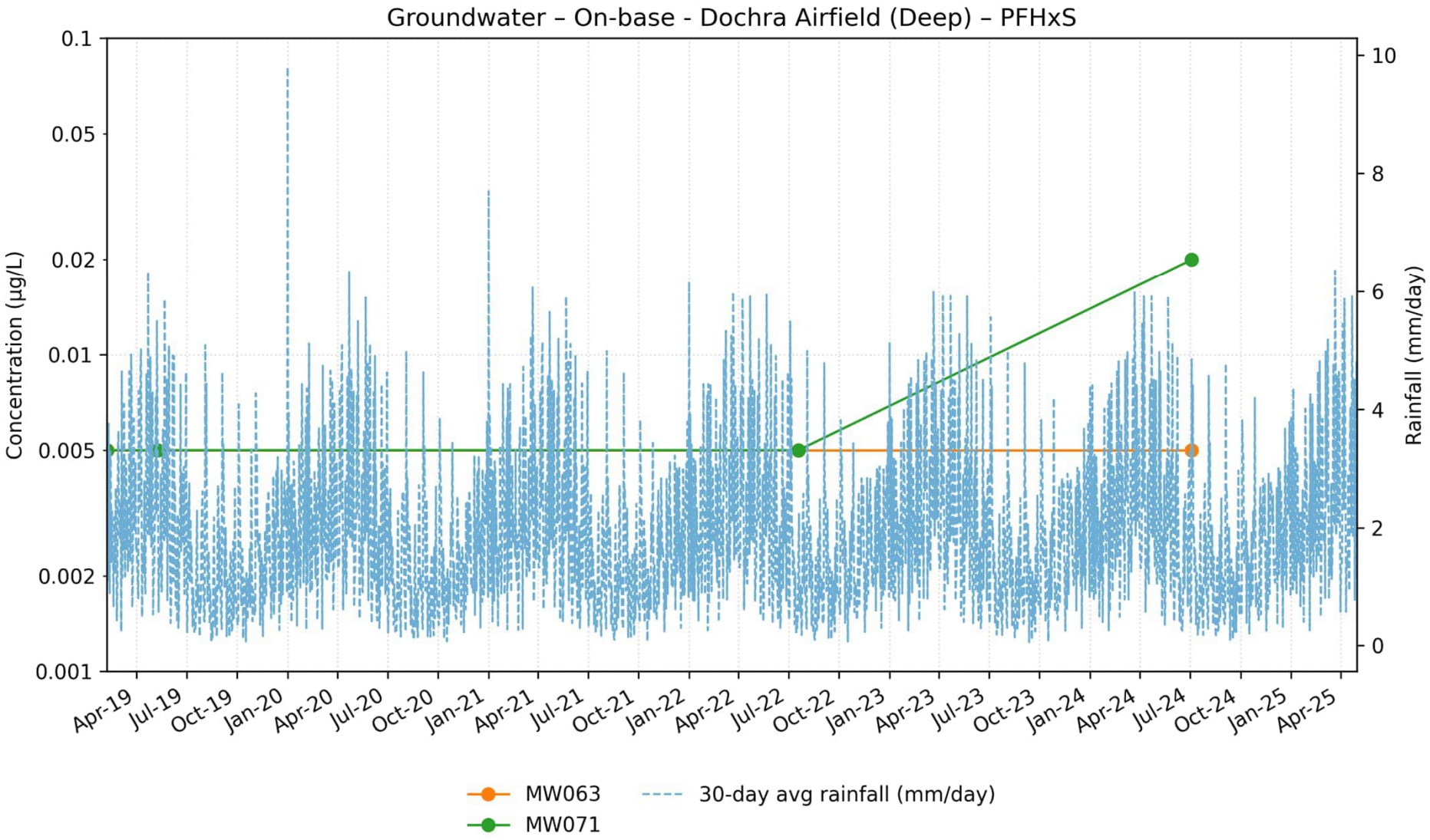
Graph G16 - Temporal Trend



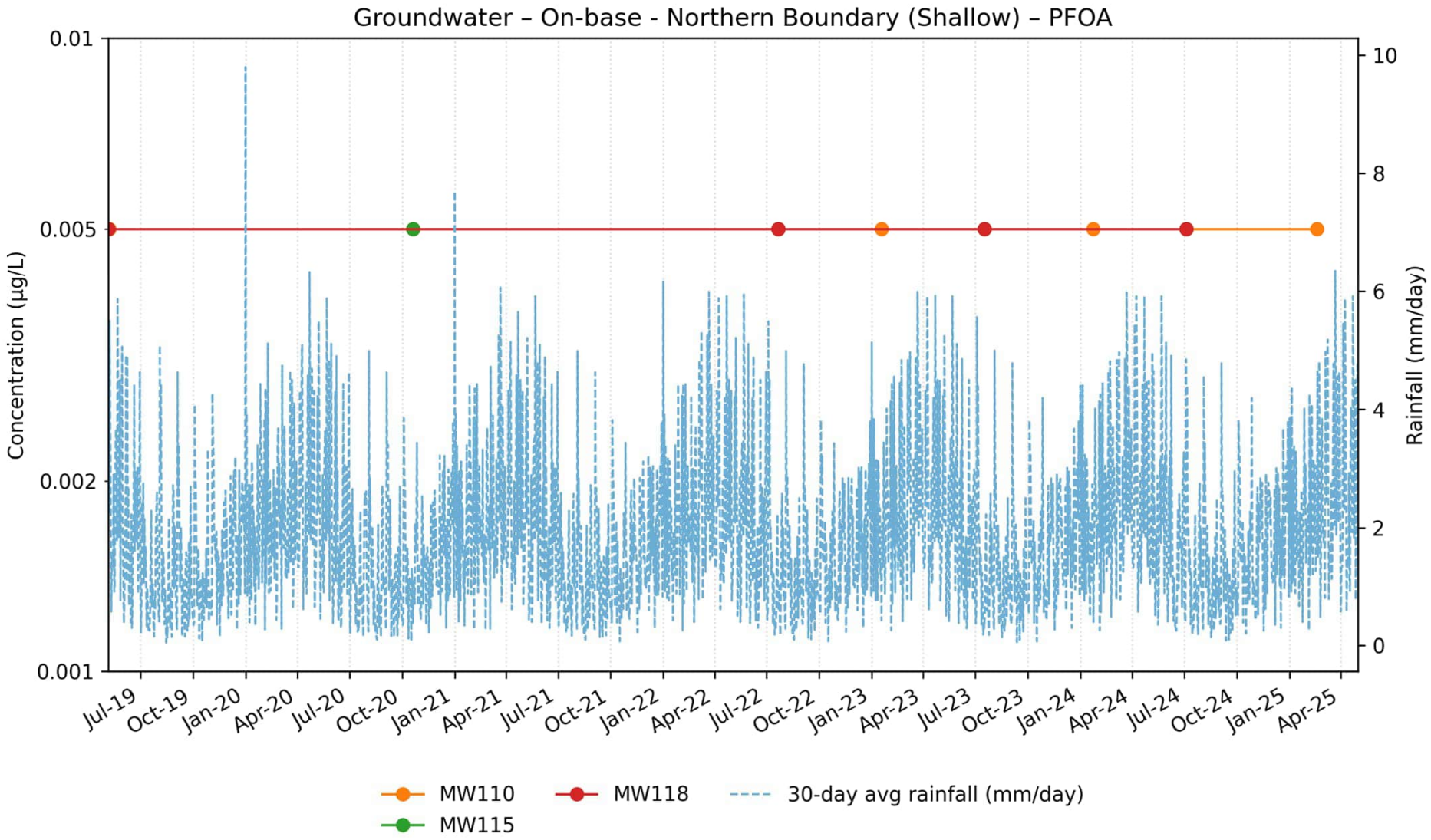
Graph G17 - Temporal Trend



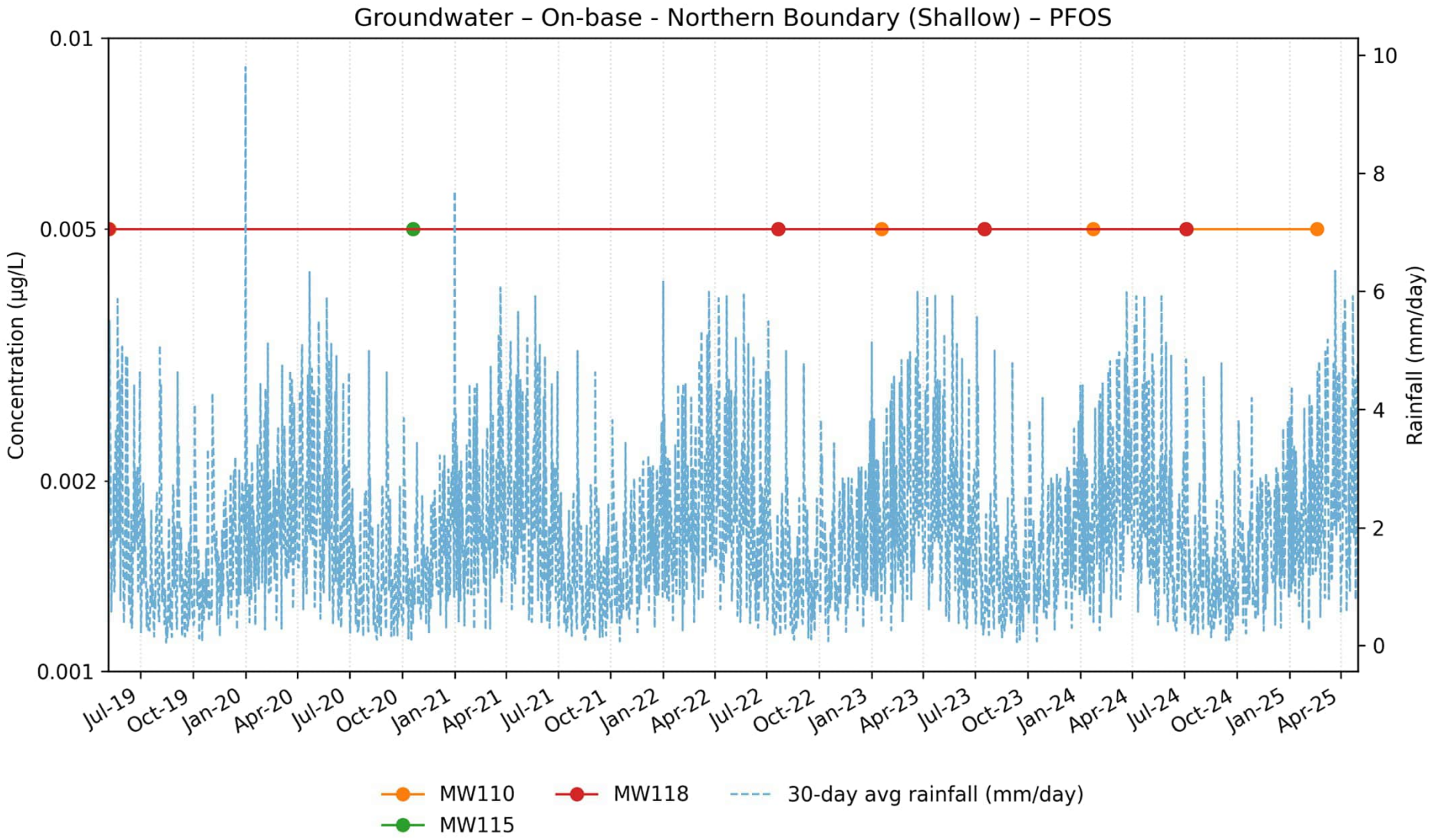
Graph G18 - Temporal Trend



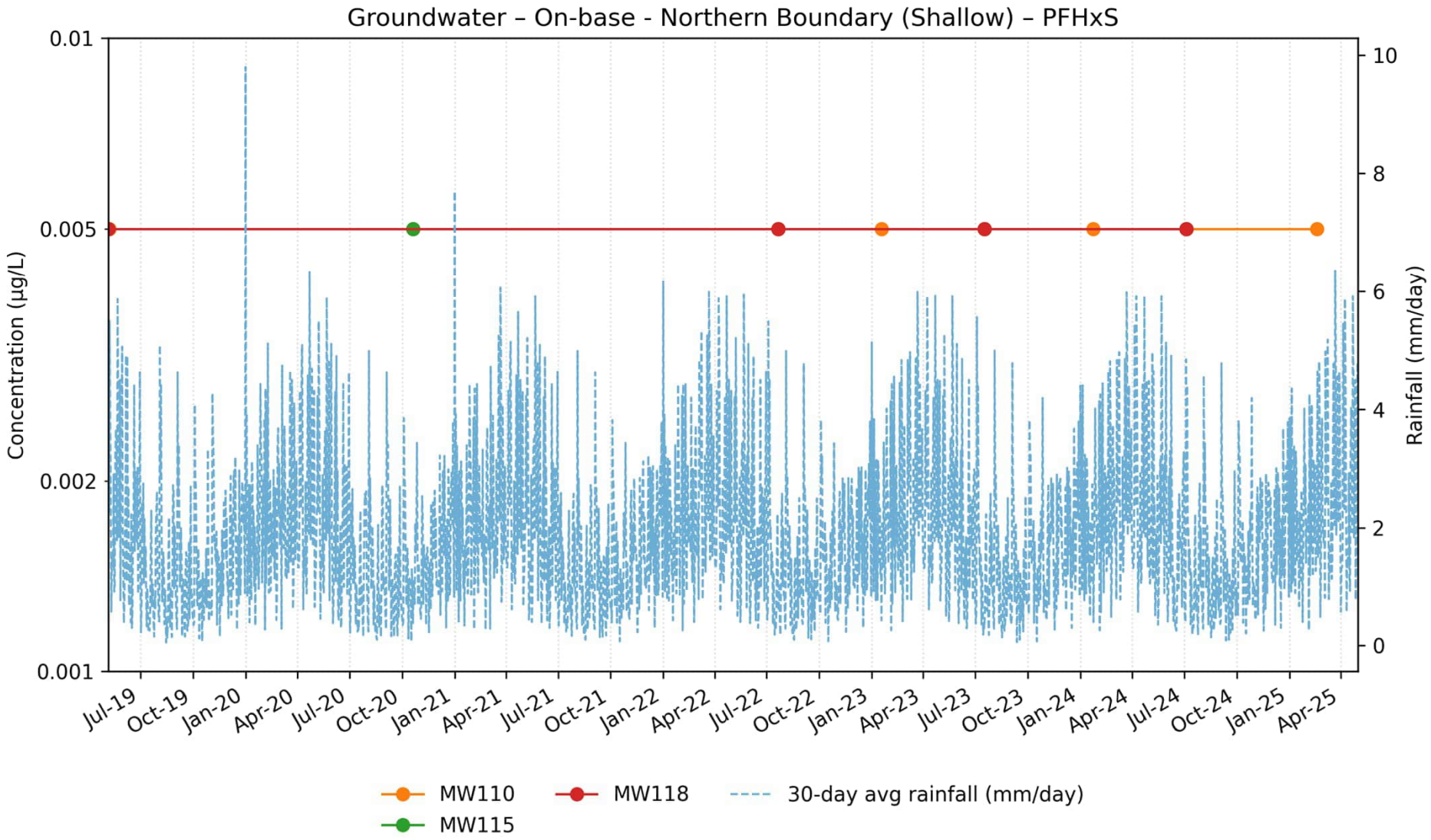
Graph G19 - Temporal Trend



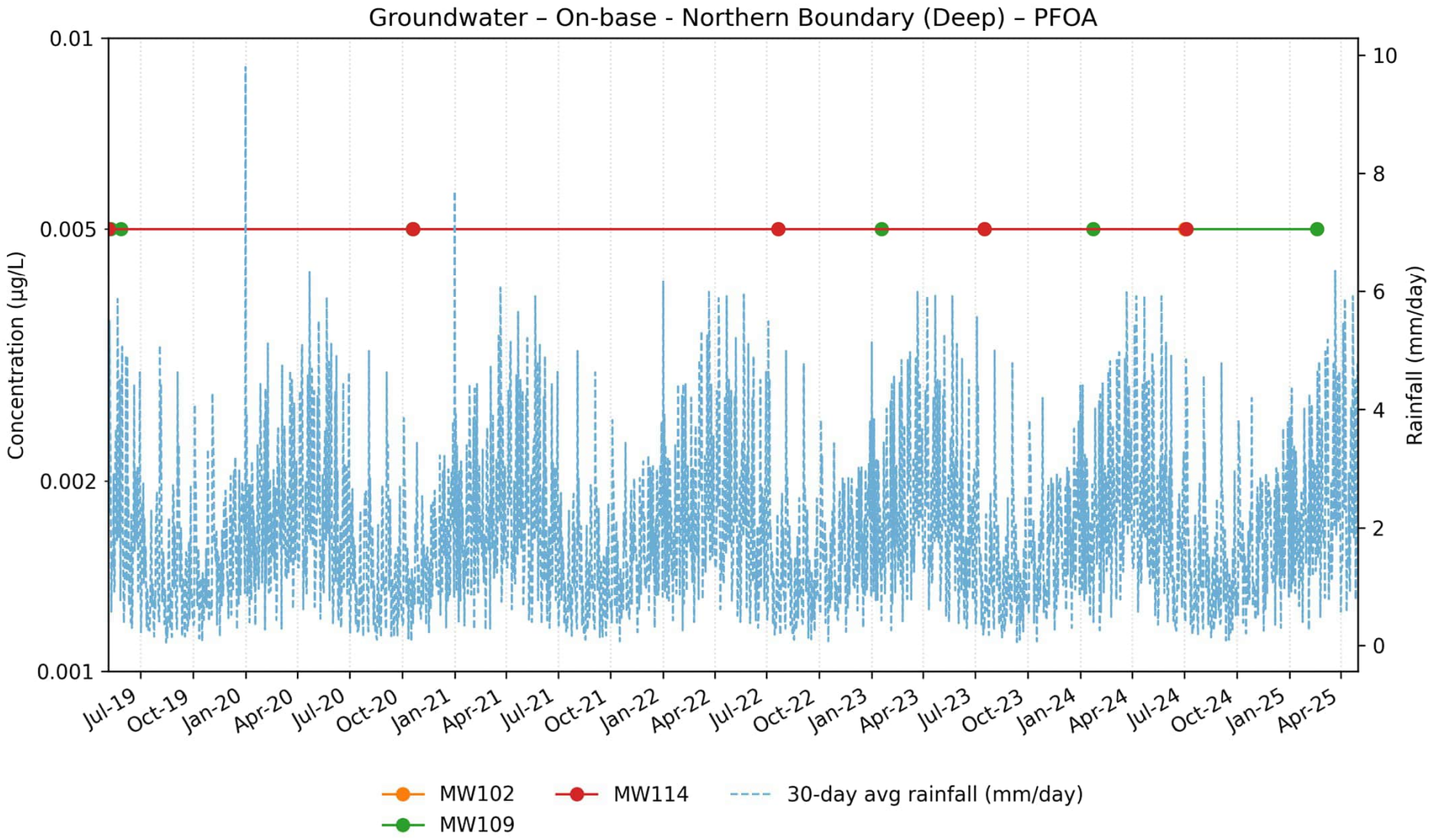
Graph G20 - Temporal Trend



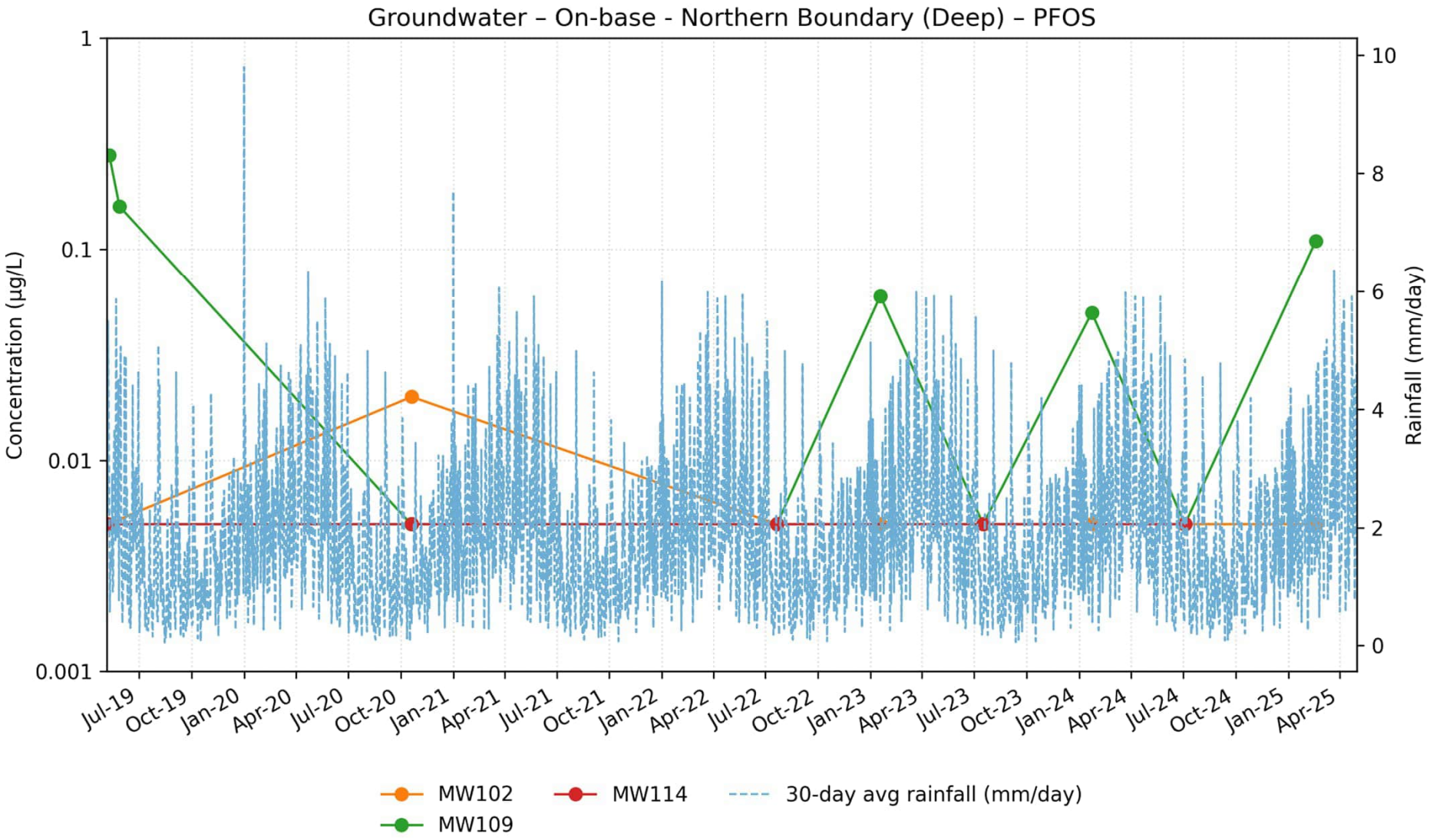
Graph G21 - Temporal Trend



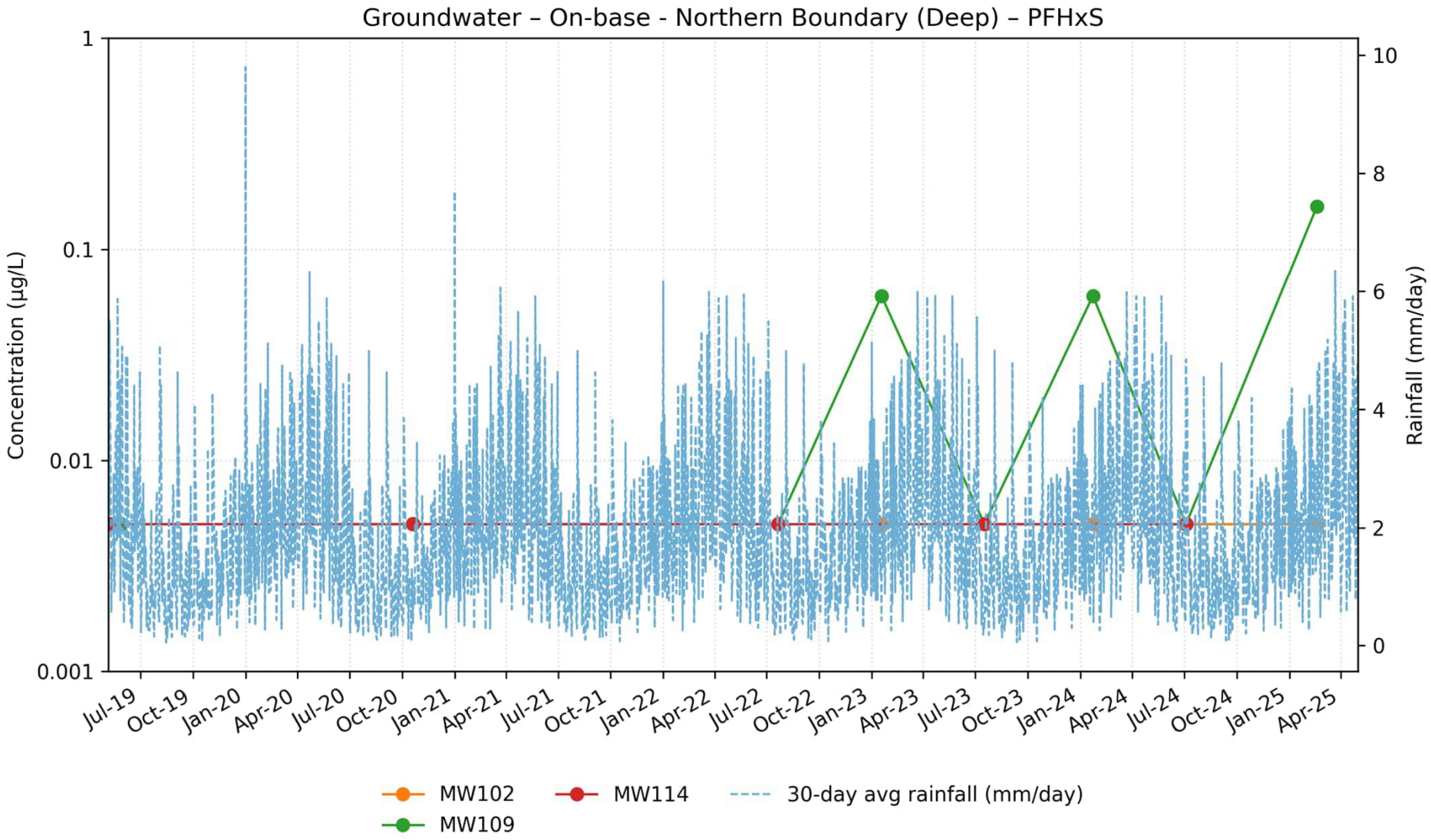
Graph G22 - Temporal Trend



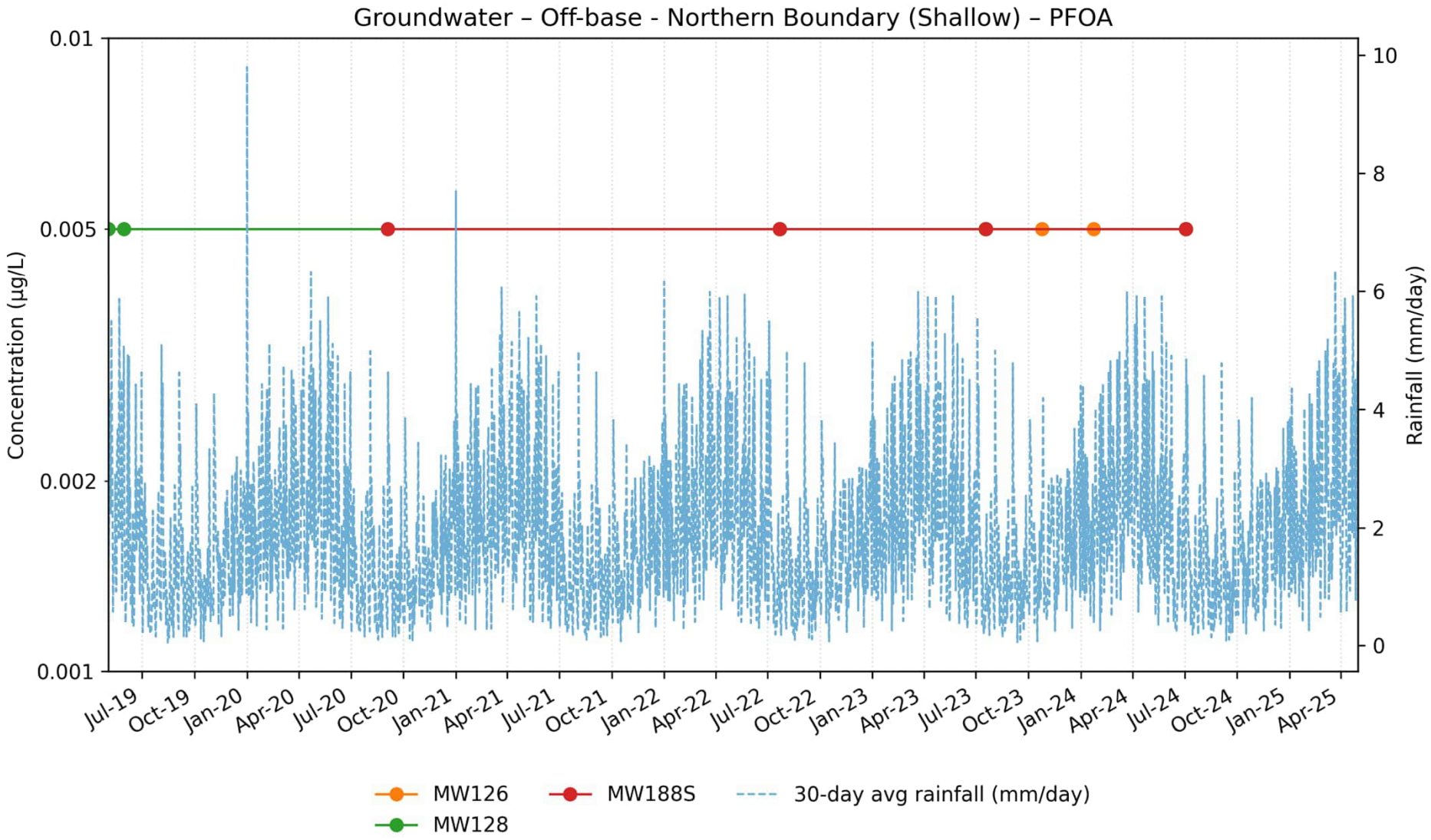
Graph G23 - Temporal Trend



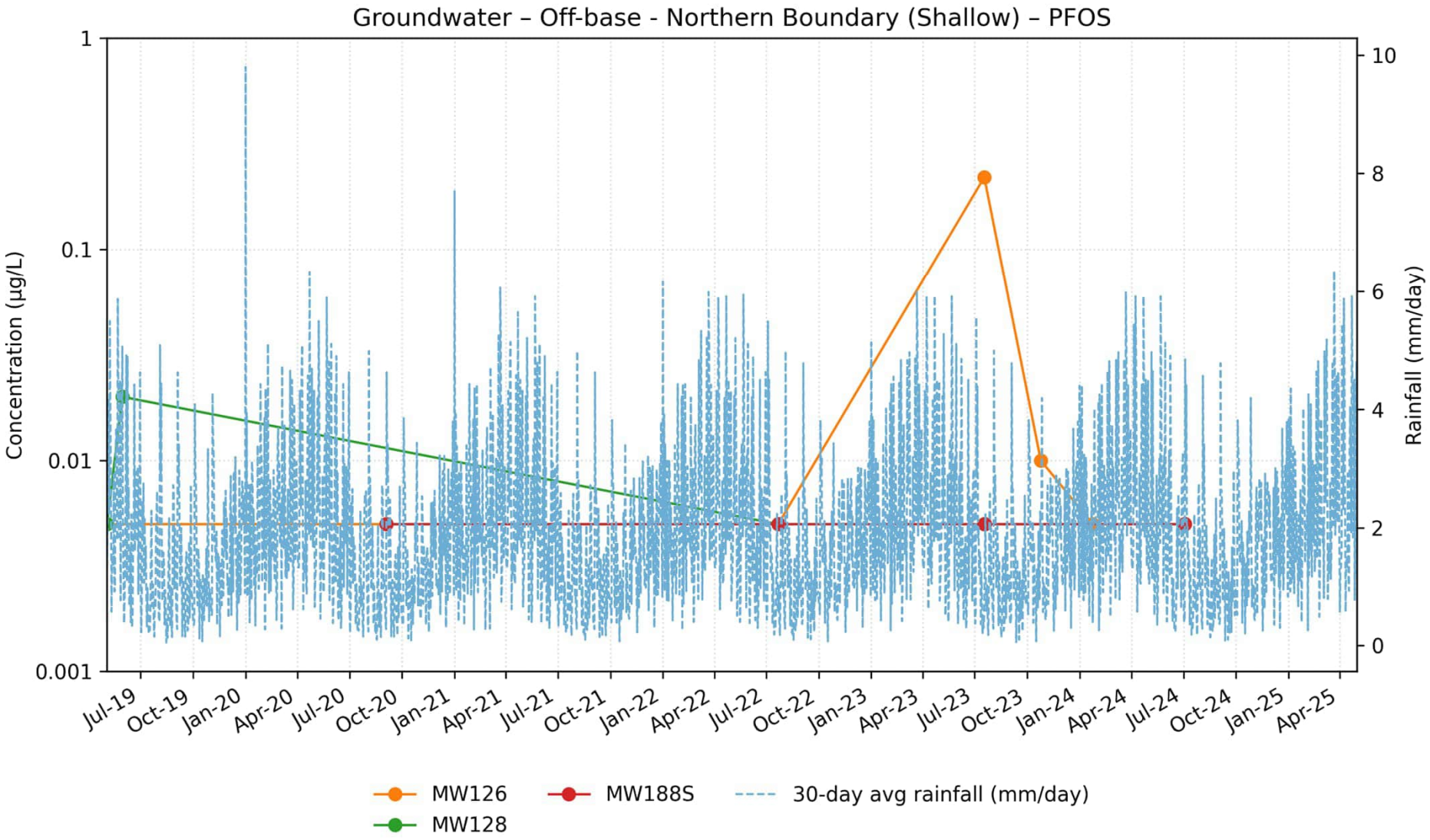
Graph G24 - Temporal Trend



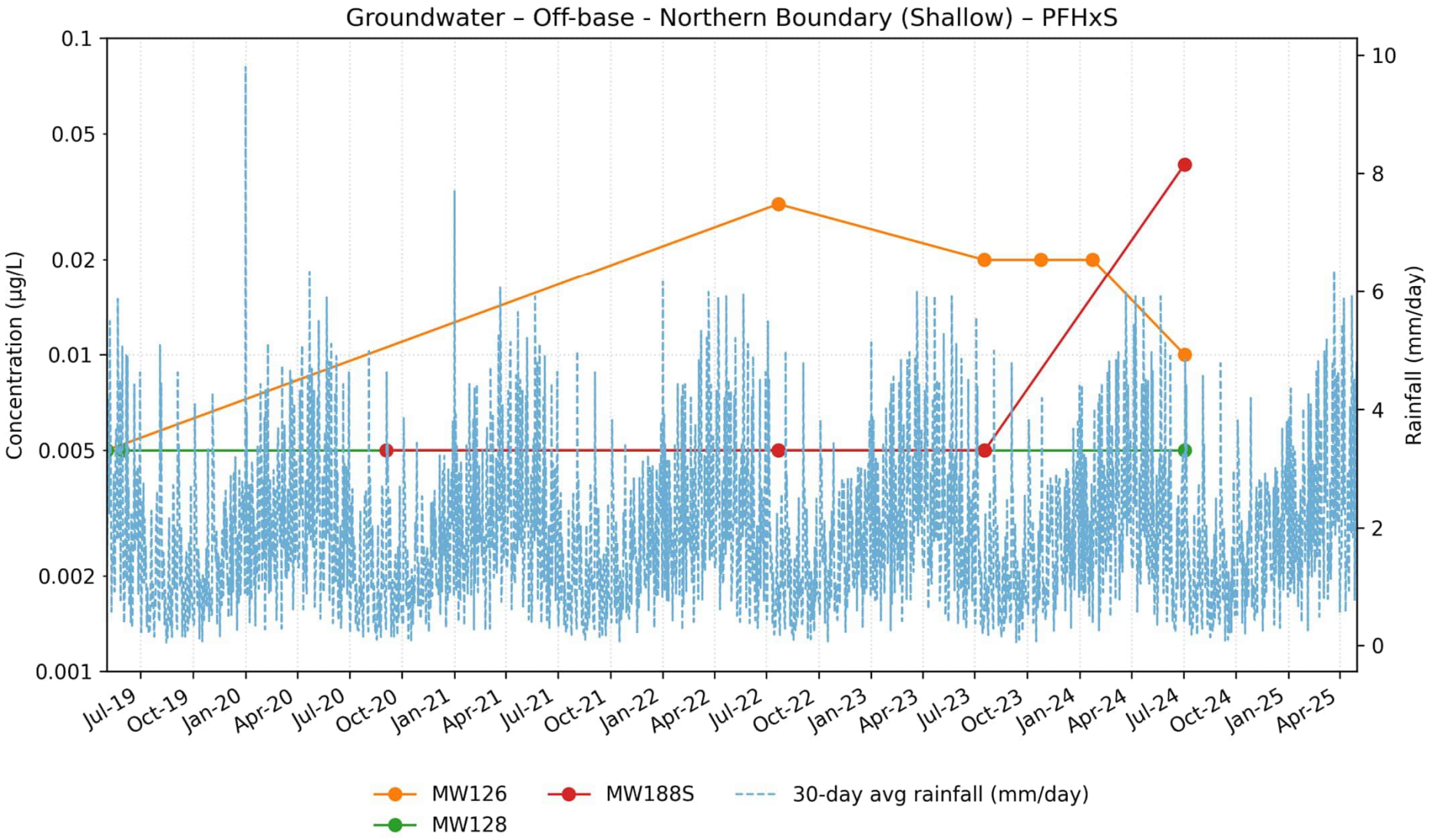
Graph G25 - Temporal Trend



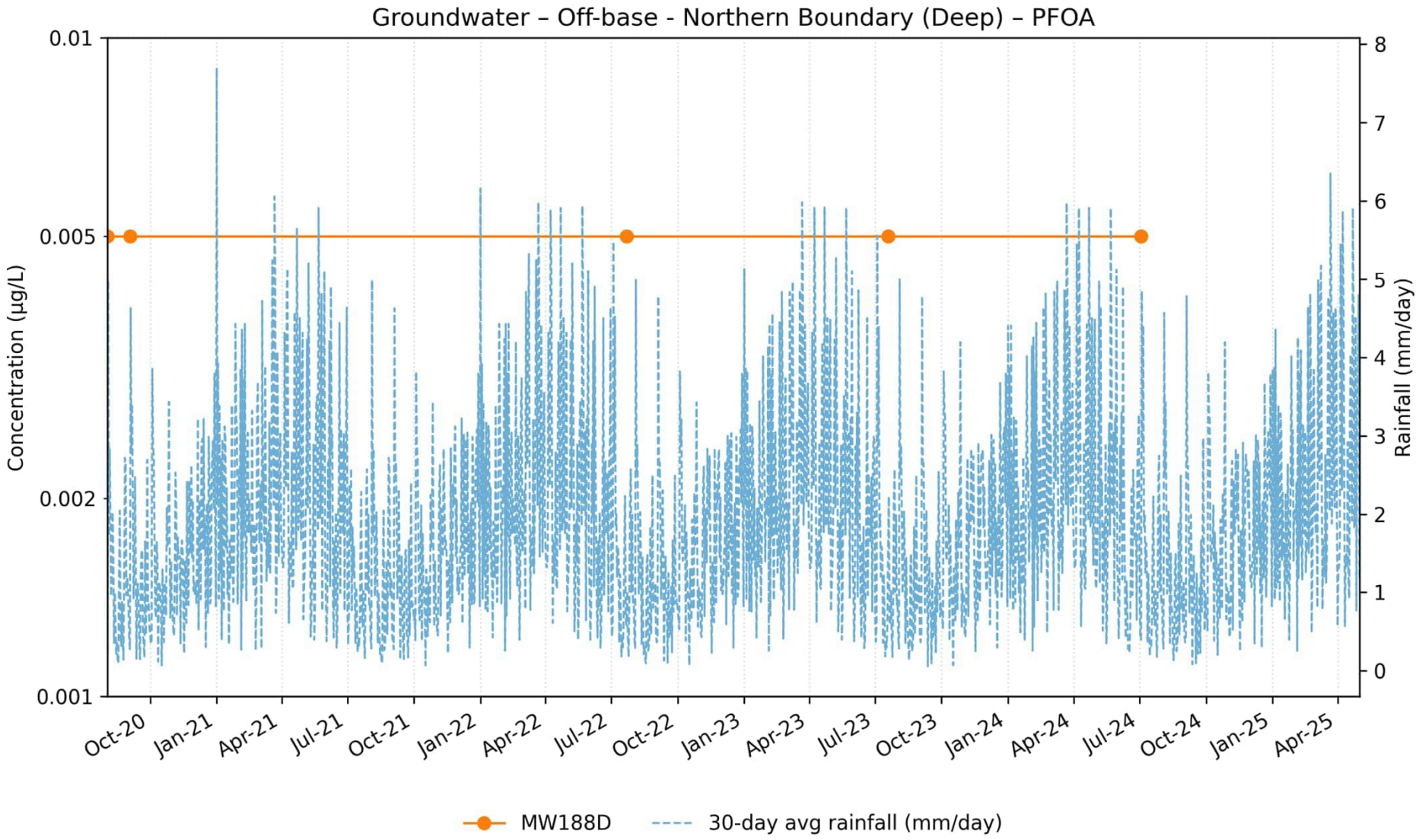
Graph G26 - Temporal Trend



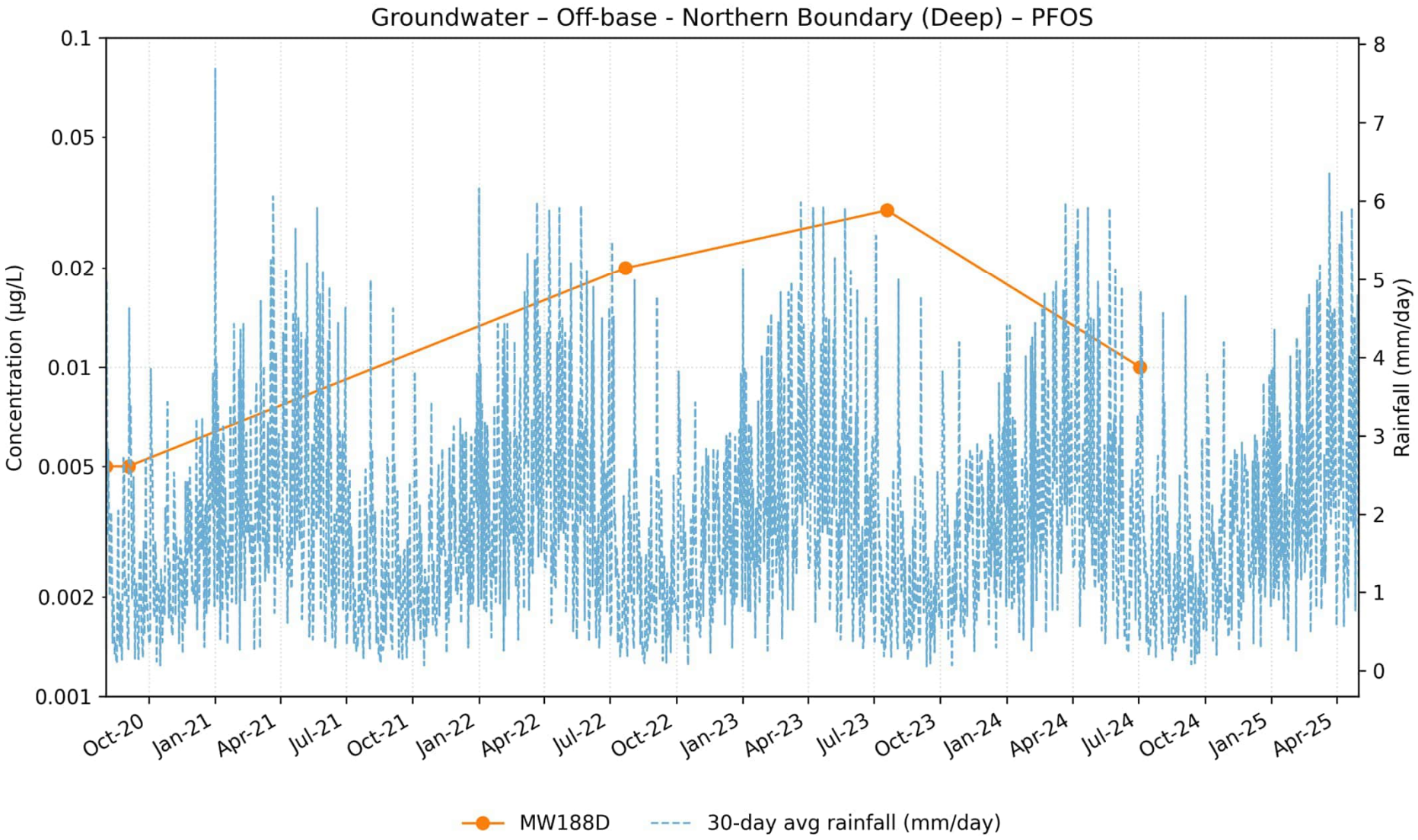
Graph G27 - Temporal Trend



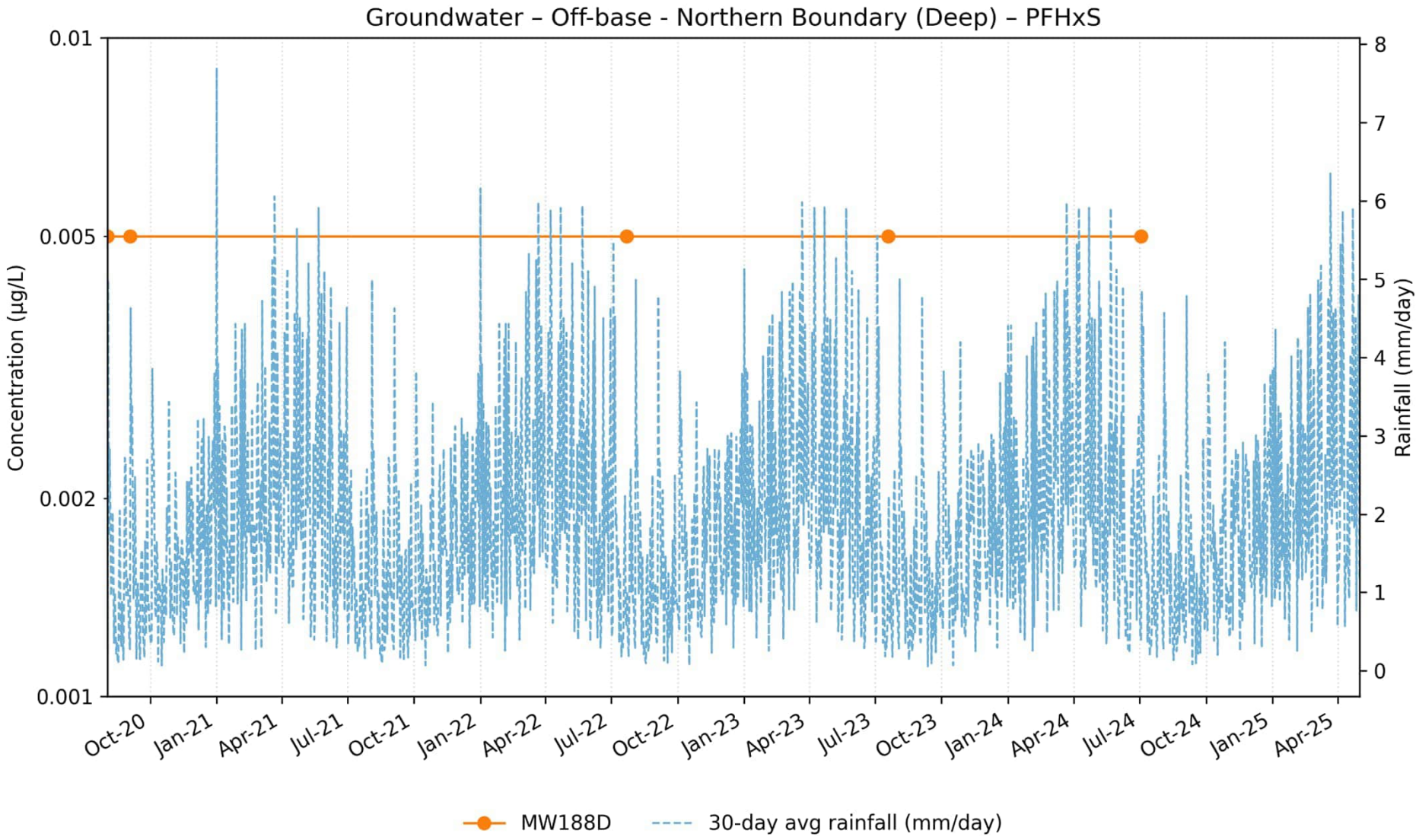
Graph G28 - Temporal Trend



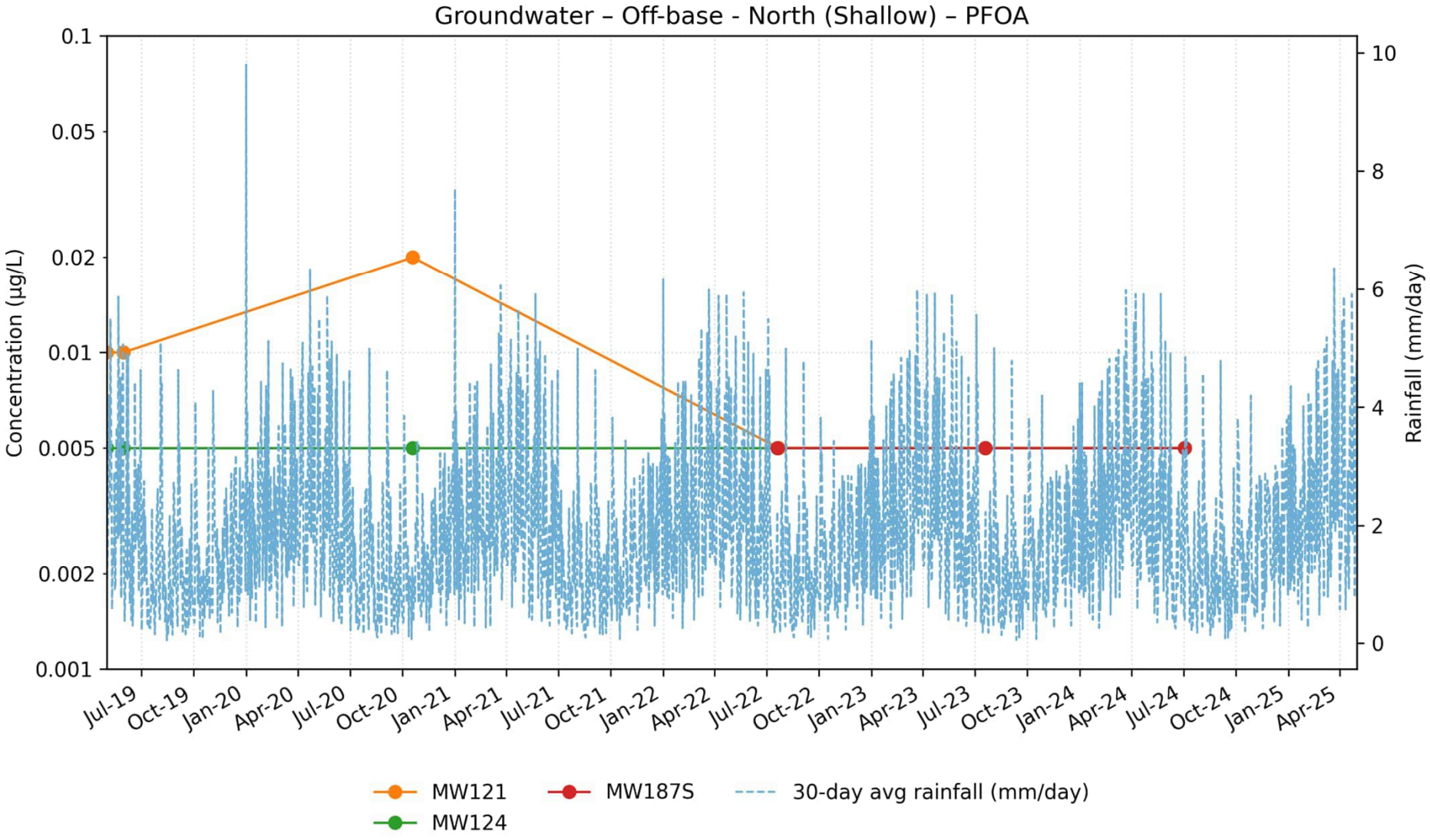
Graph G29 - Temporal Trend



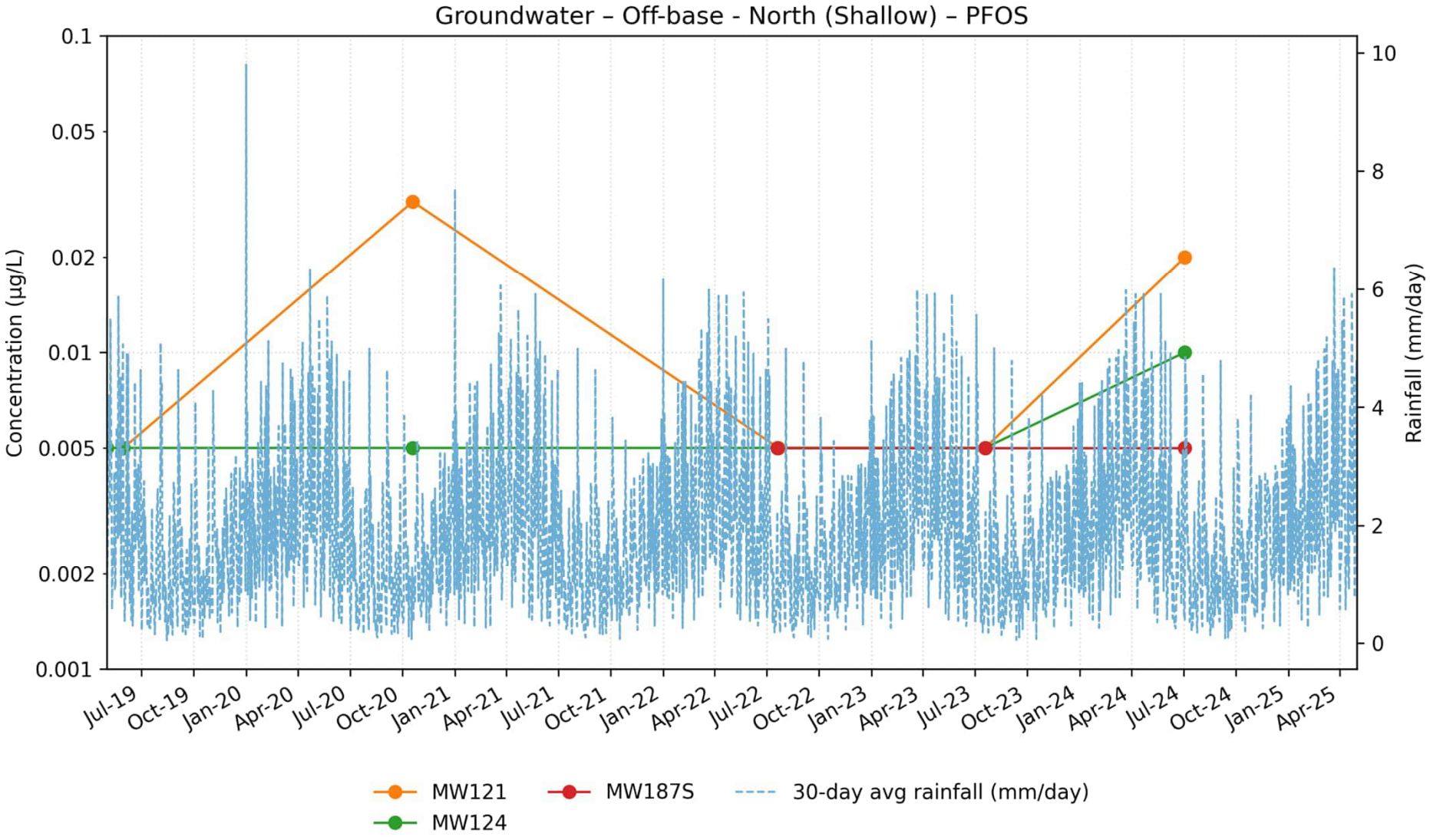
Graph G30 - Temporal Trend



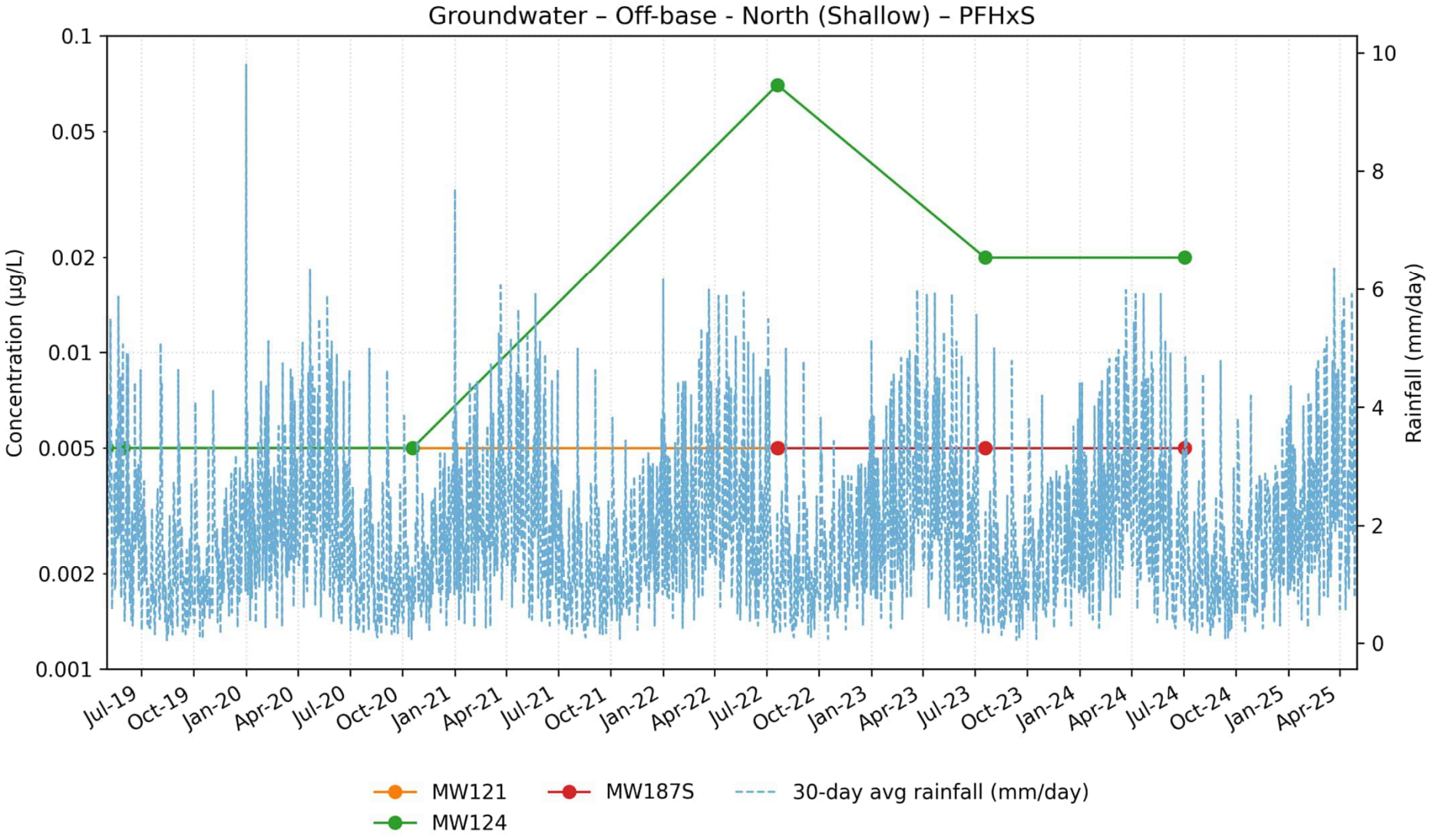
Graph G31 - Temporal Trend



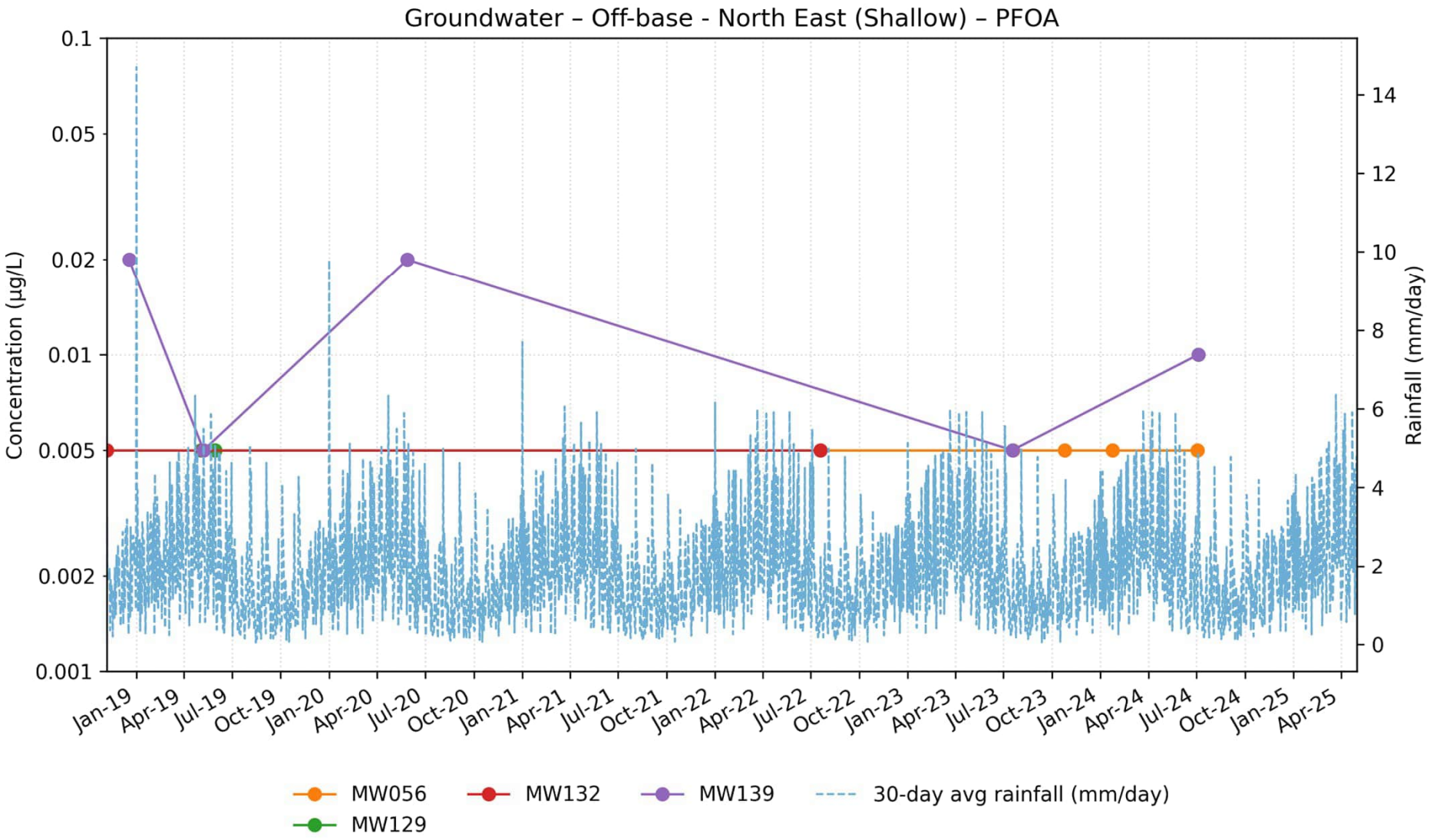
Graph G32 - Temporal Trend



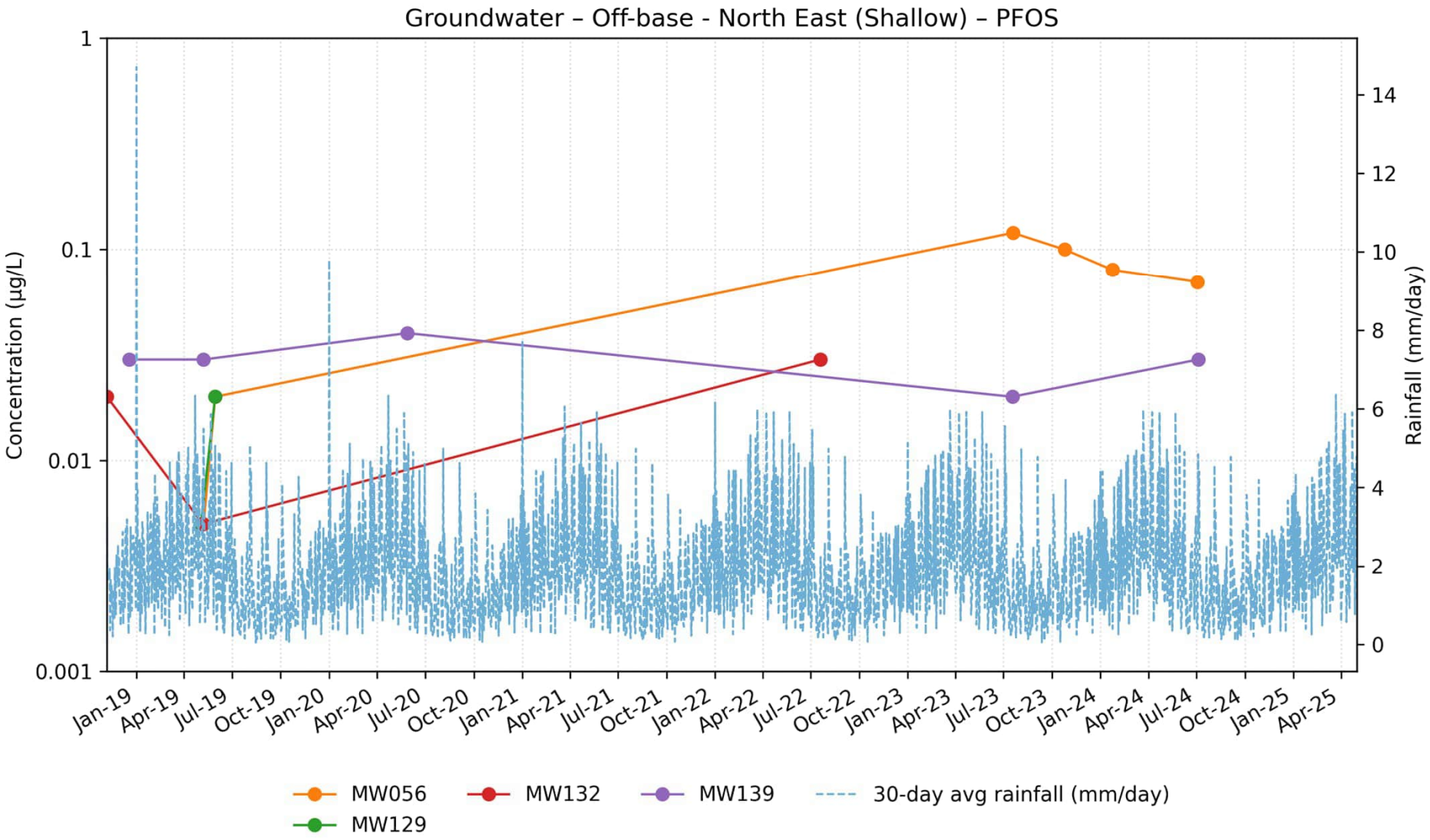
Graph G33 - Temporal Trend



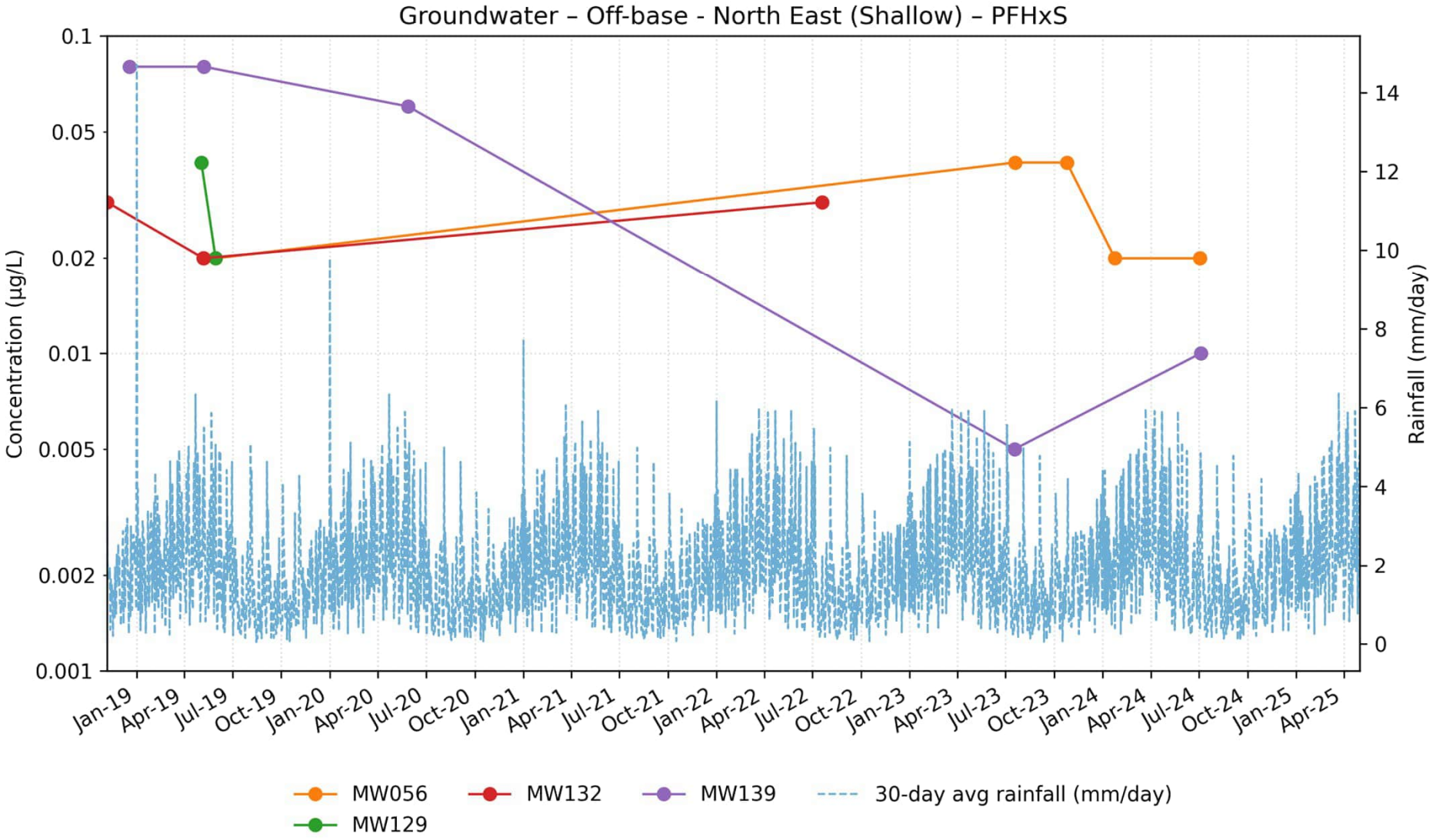
Graph G34 - Temporal Trend



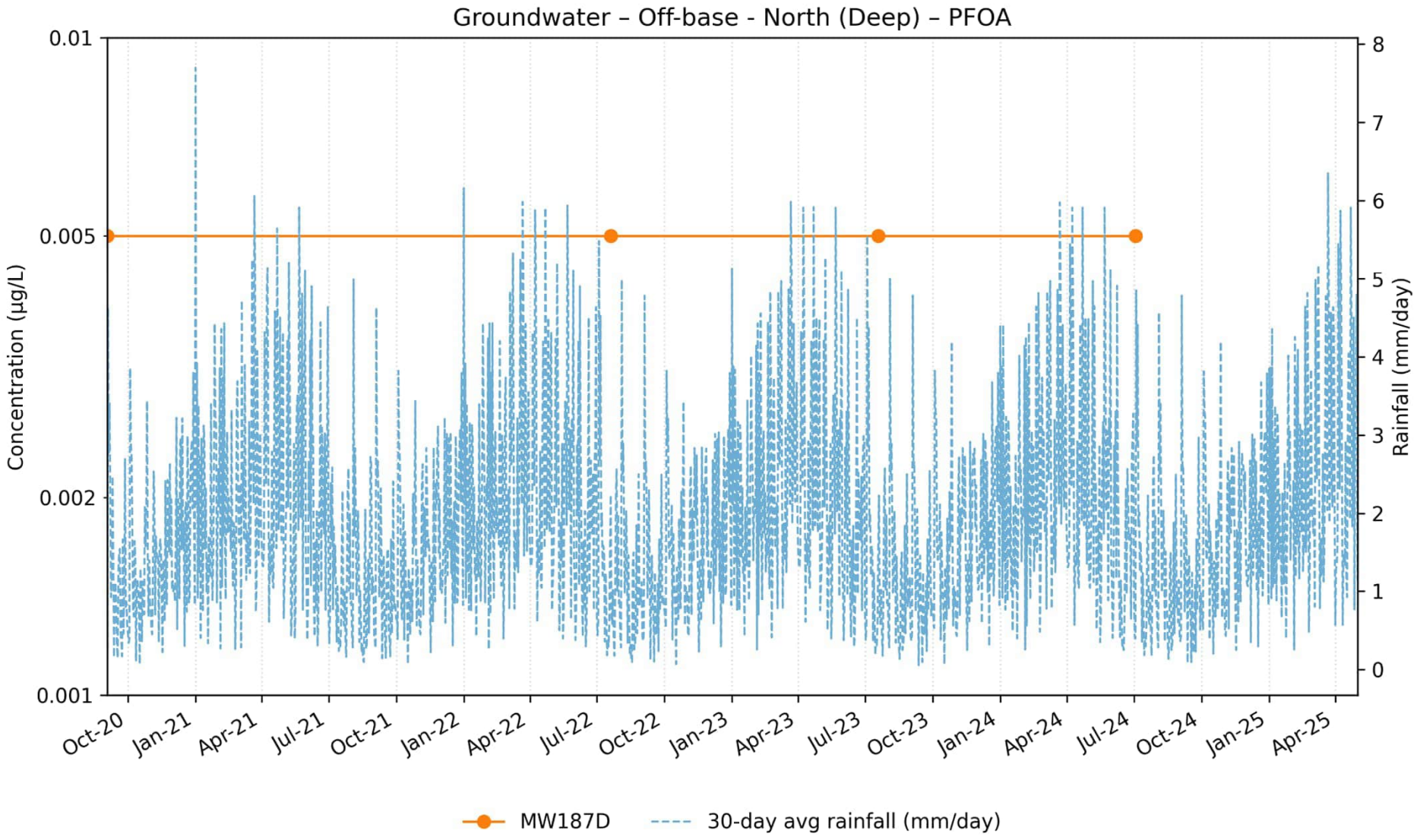
Graph G35 - Temporal Trend



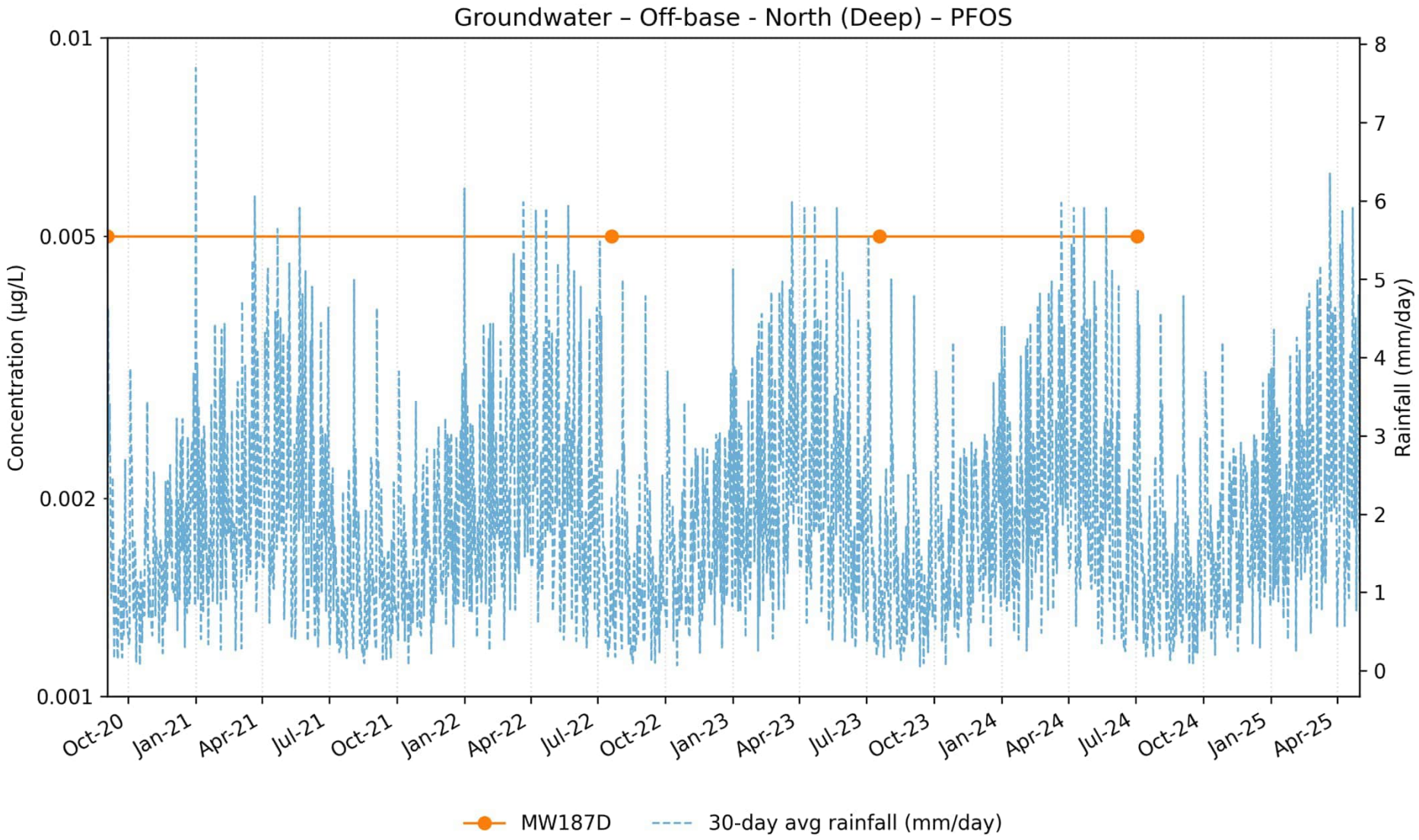
Graph G36 - Temporal Trend



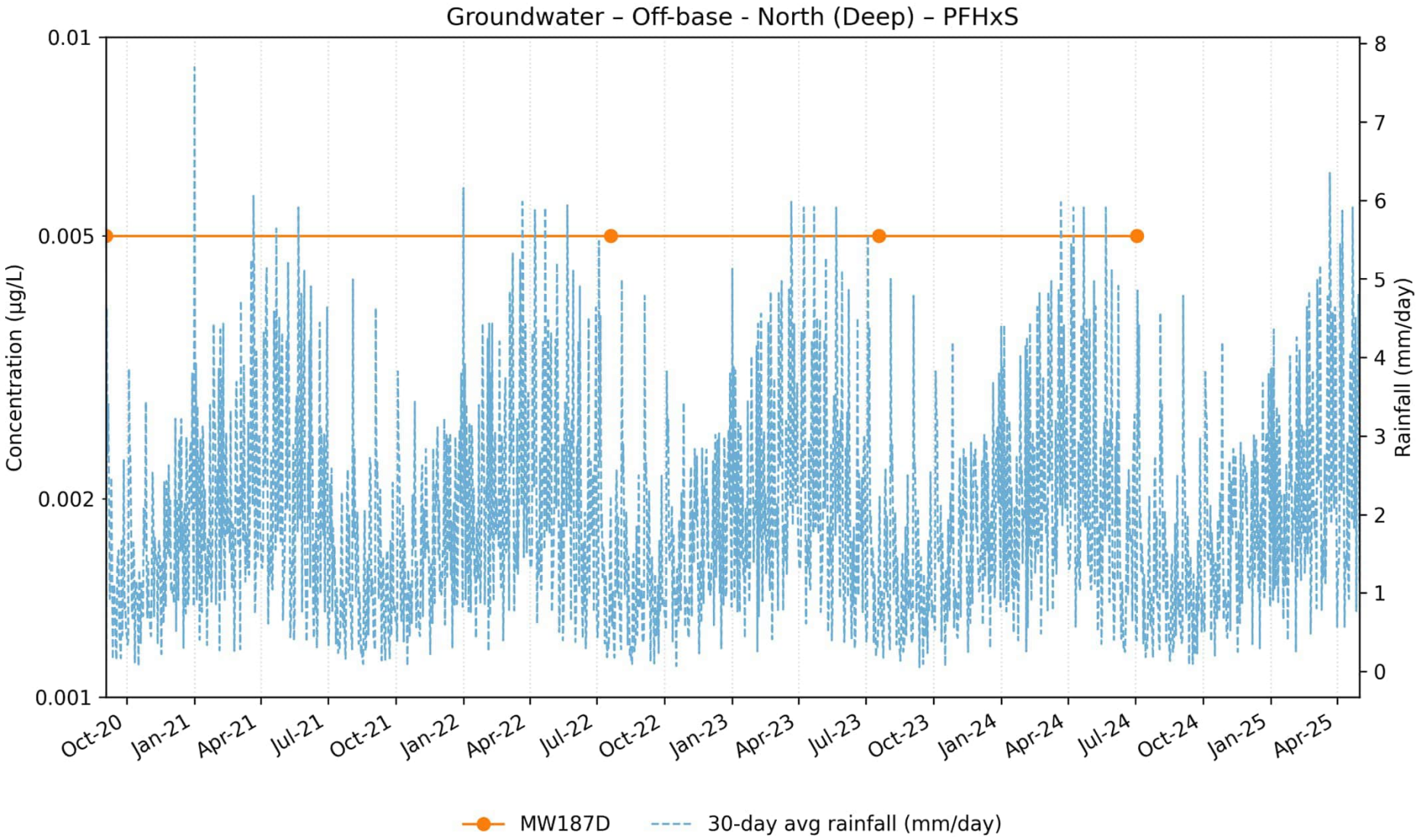
Graph G37 - Temporal Trend



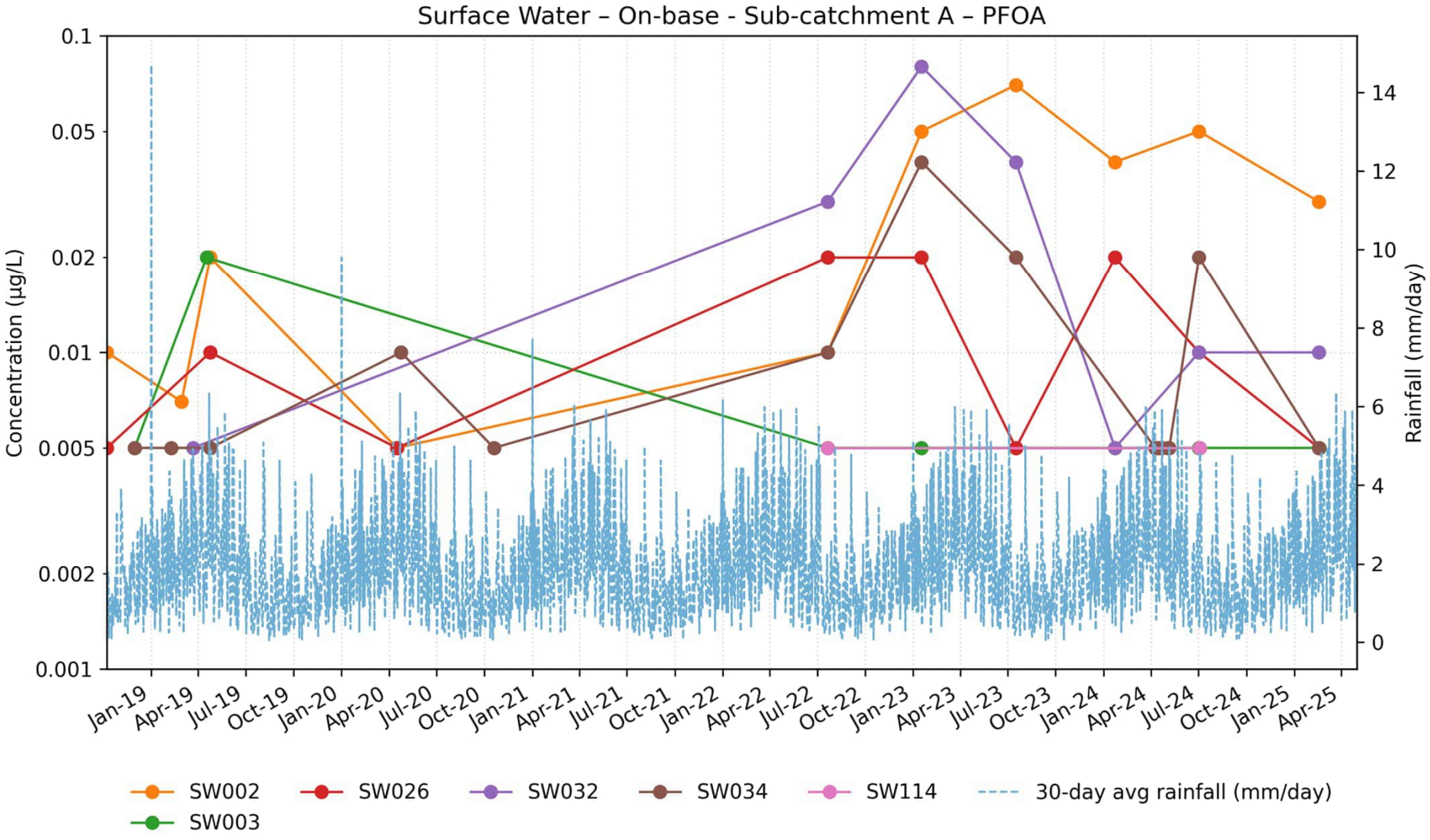
Graph G38 - Temporal Trend



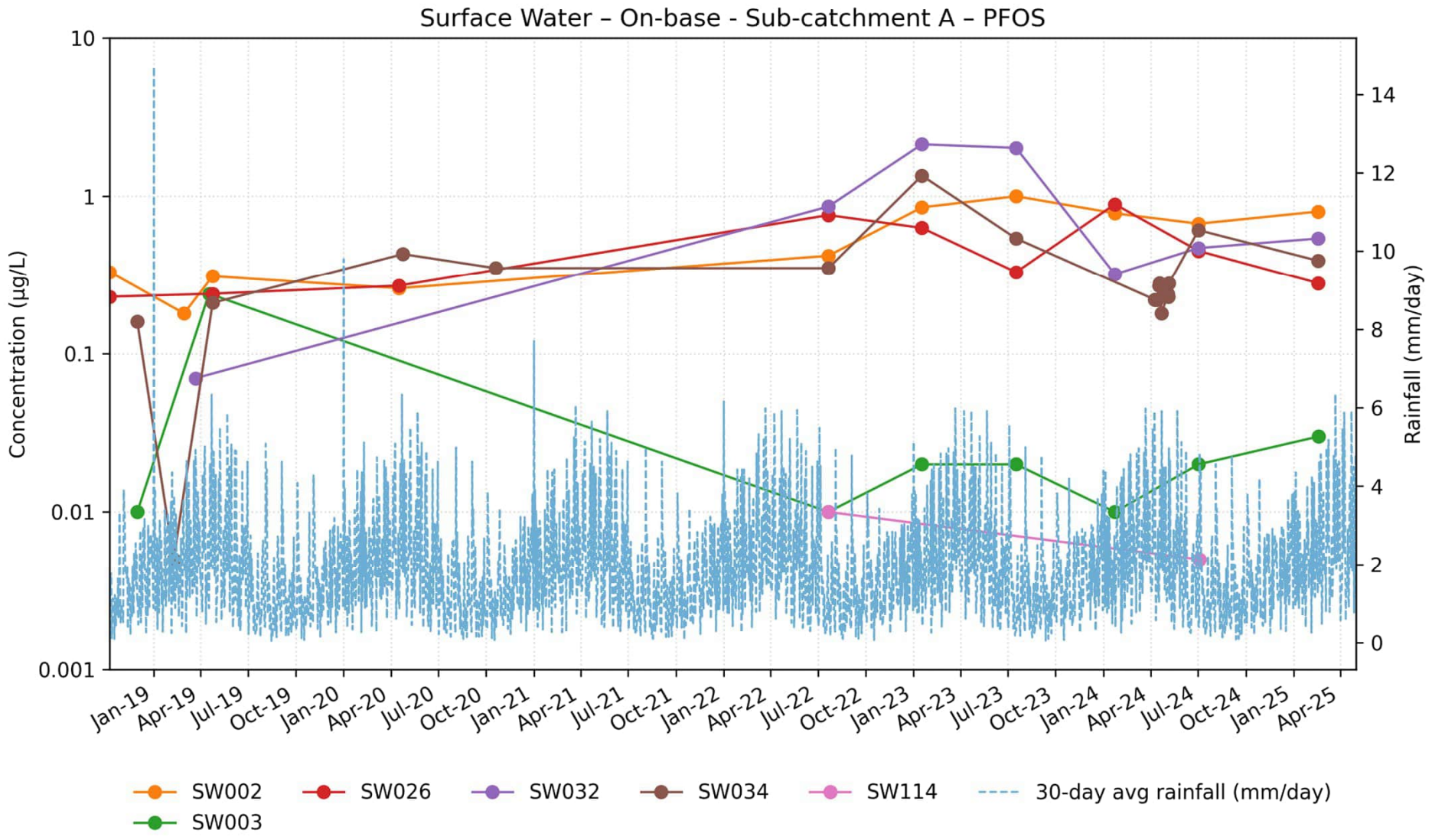
Graph G39 - Temporal Trend



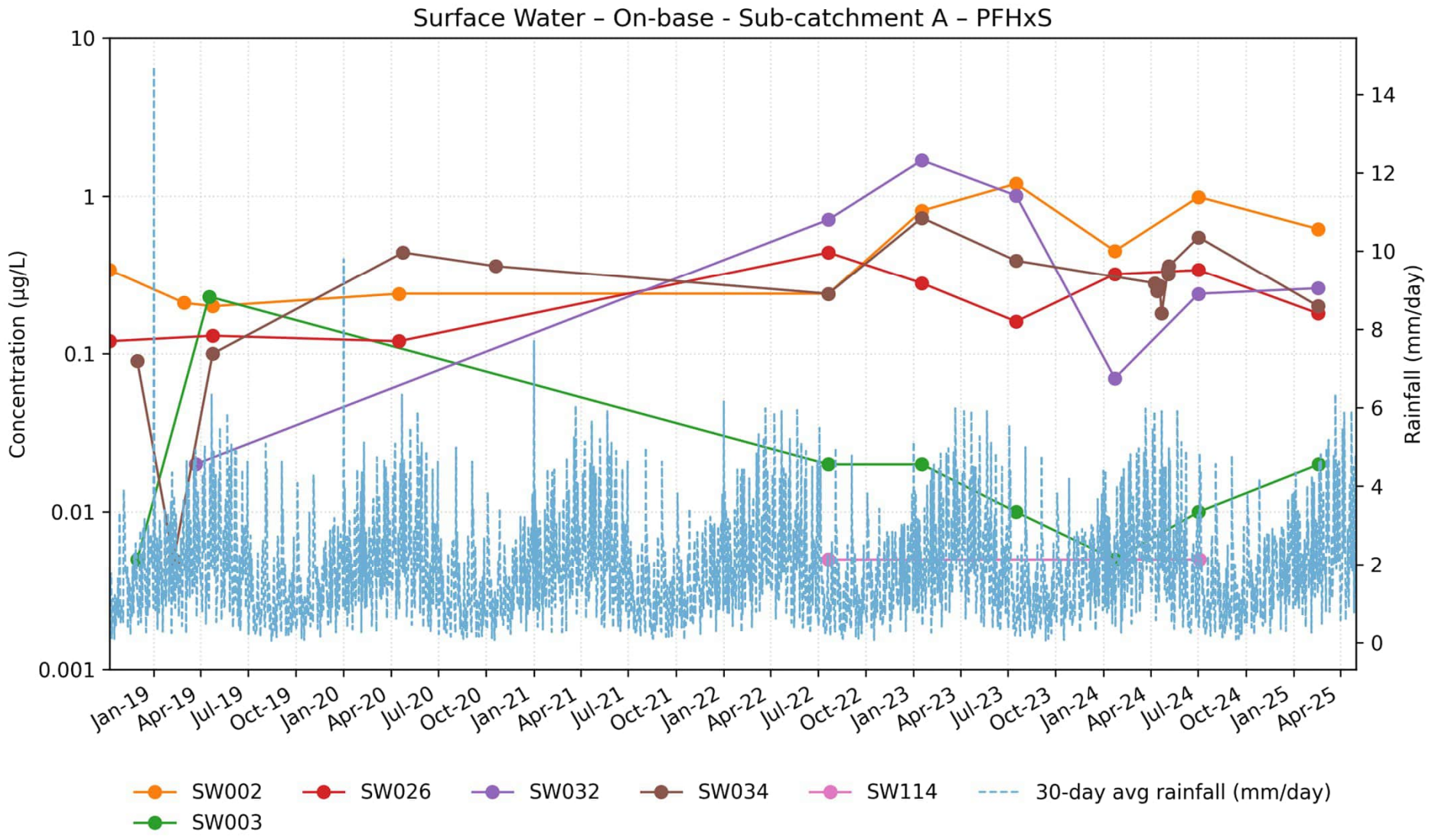
Graph G40 - Temporal Trend



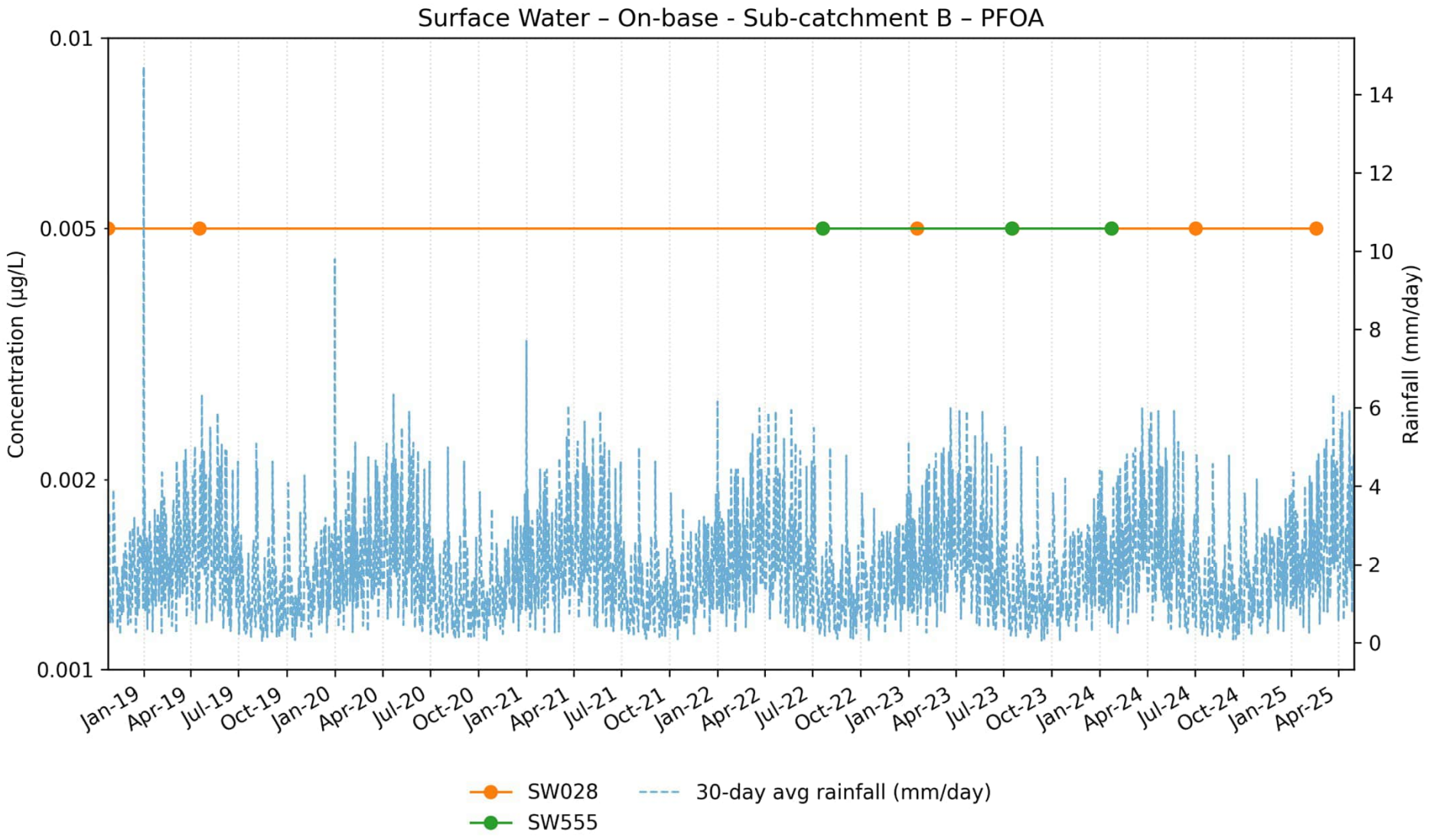
Graph G41 - Temporal Trend



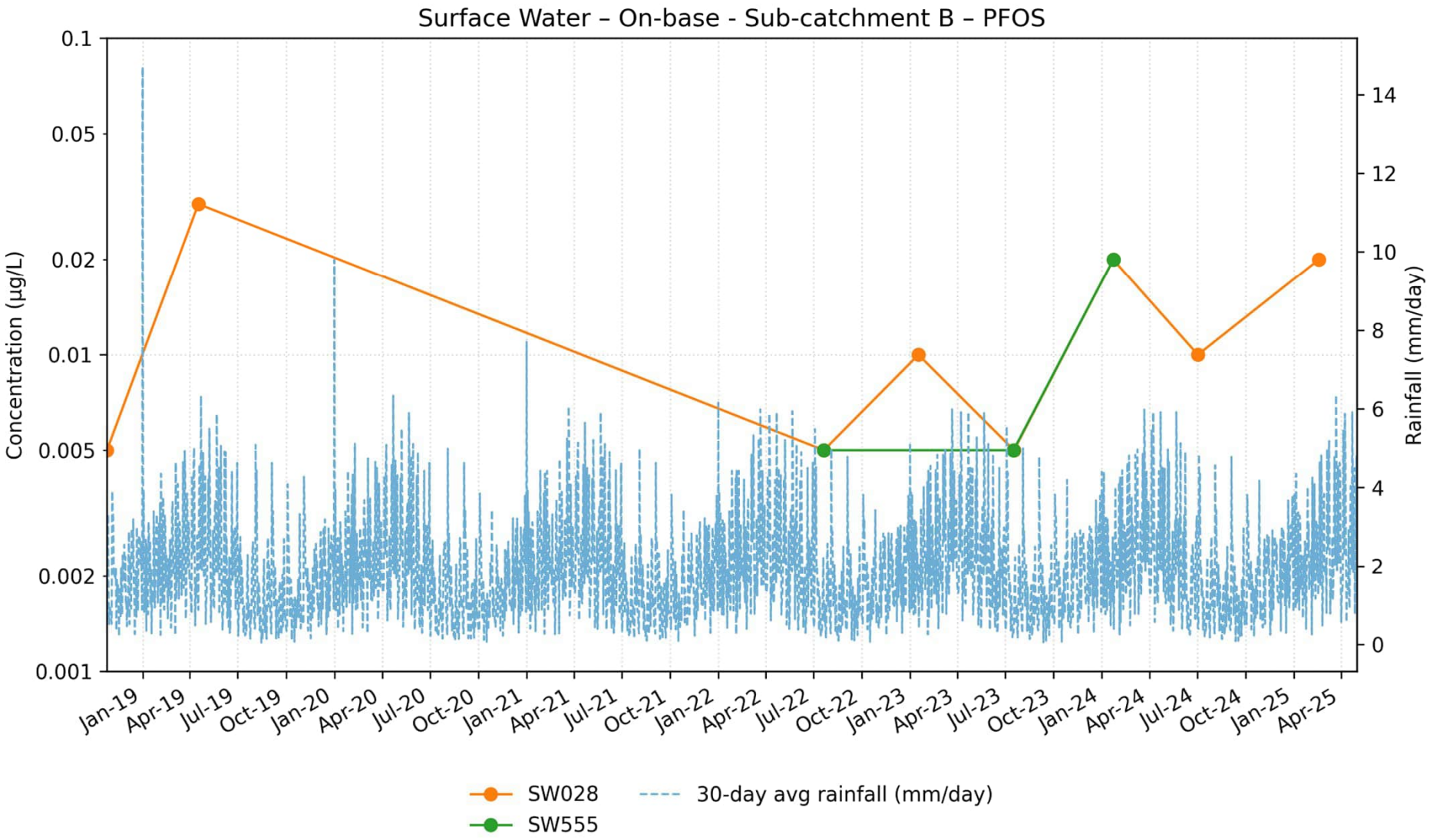
Graph G42 - Temporal Trend



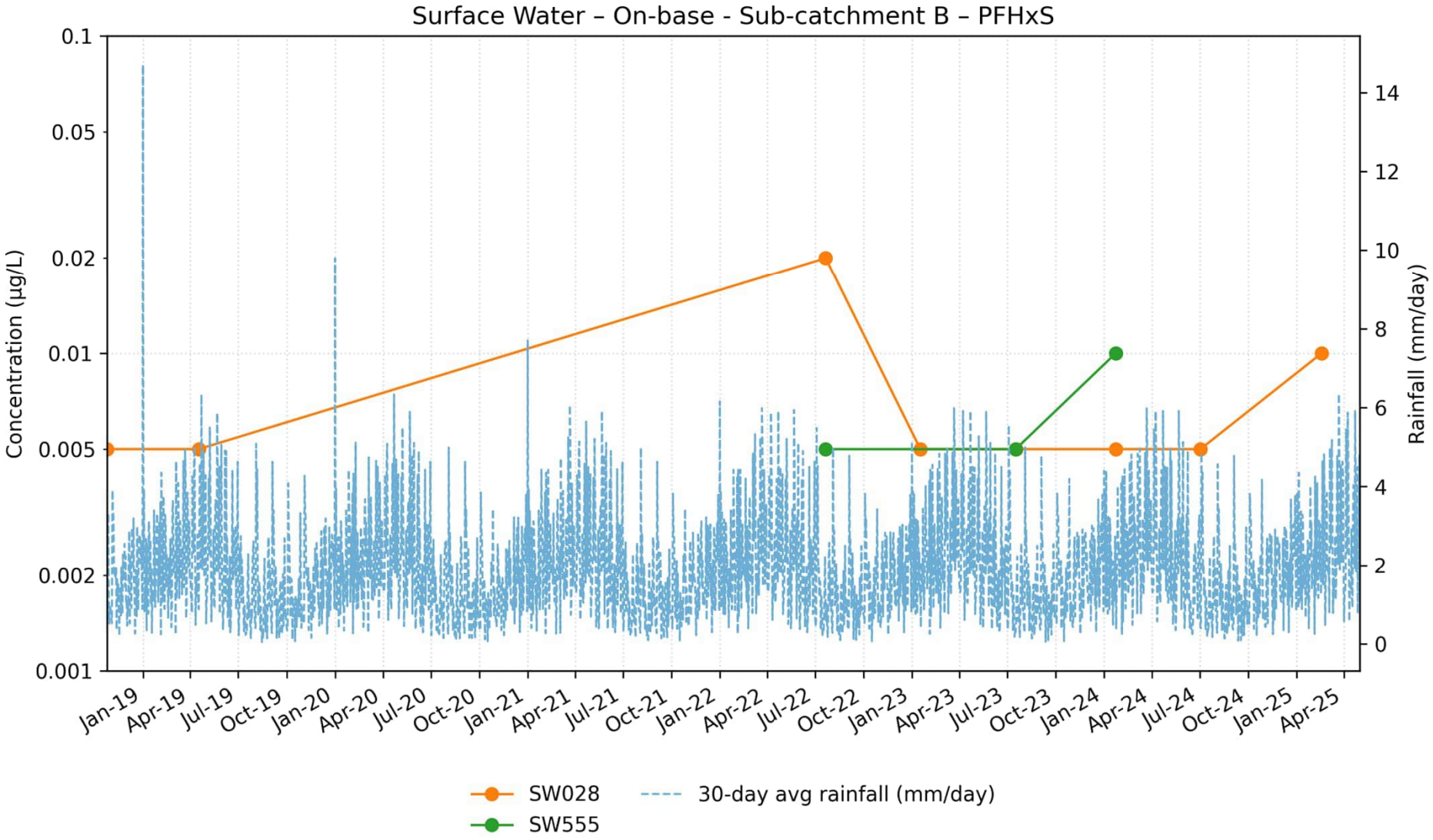
Graph G43 - Temporal Trend



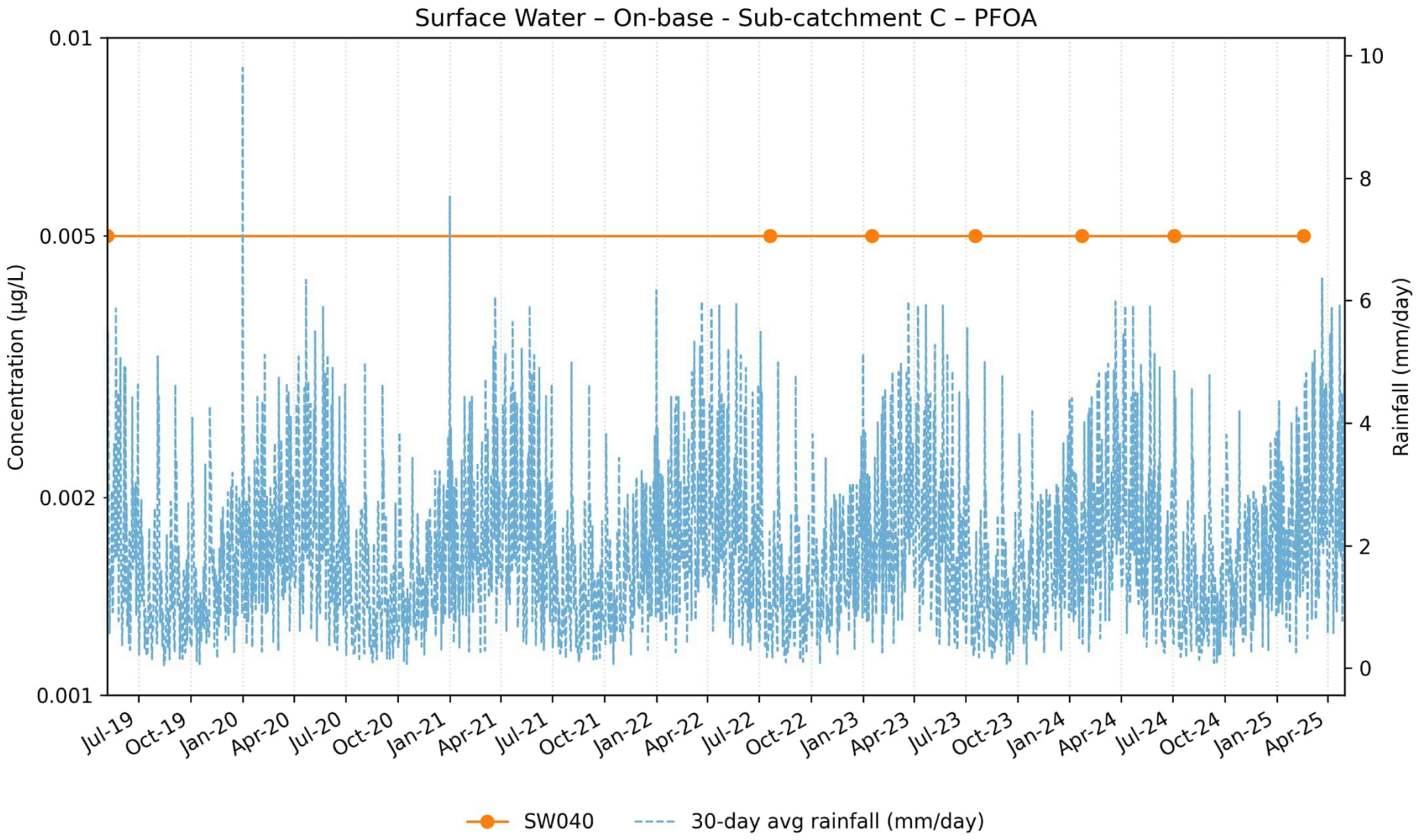
Graph G44 - Temporal Trend



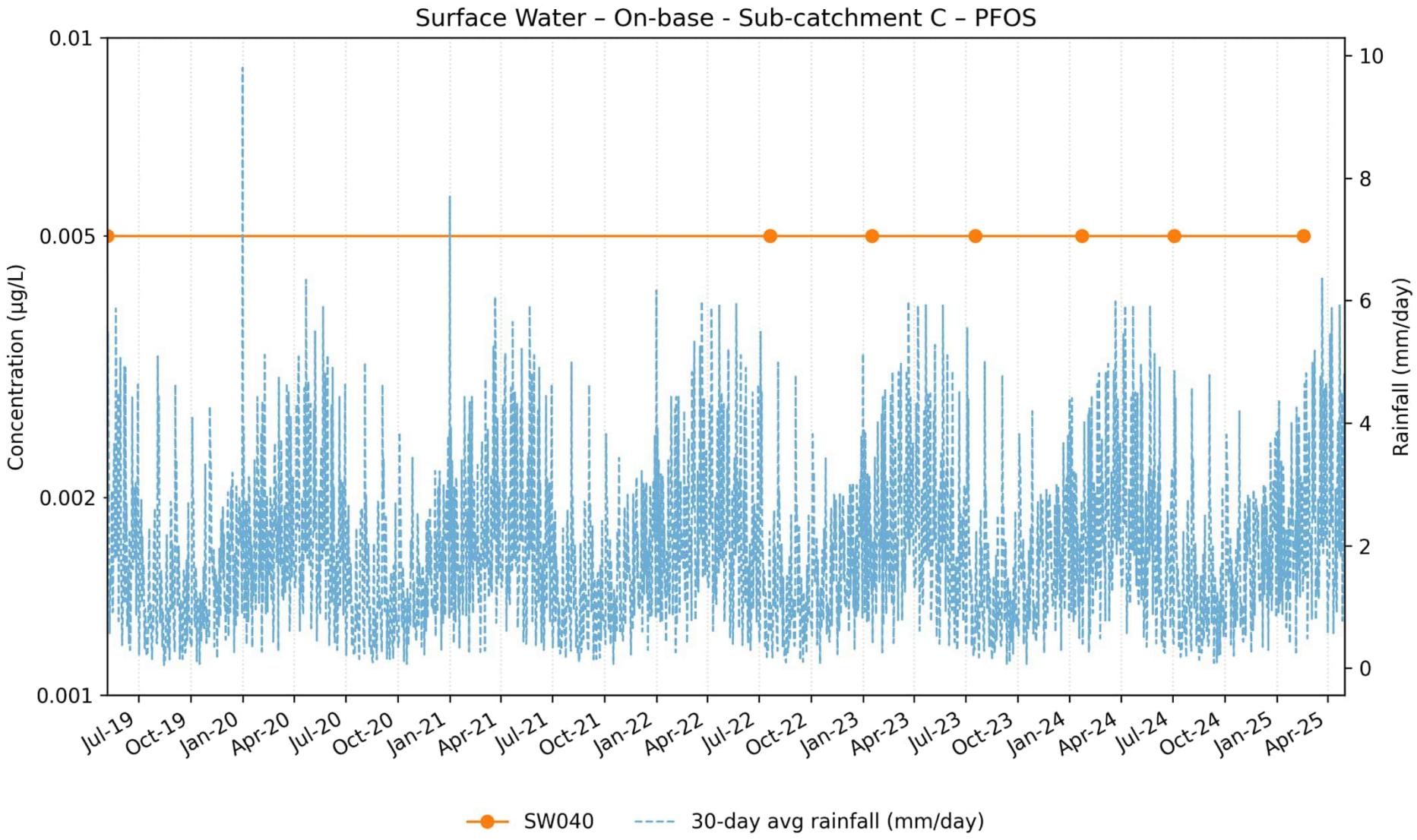
Graph G45 - Temporal Trend



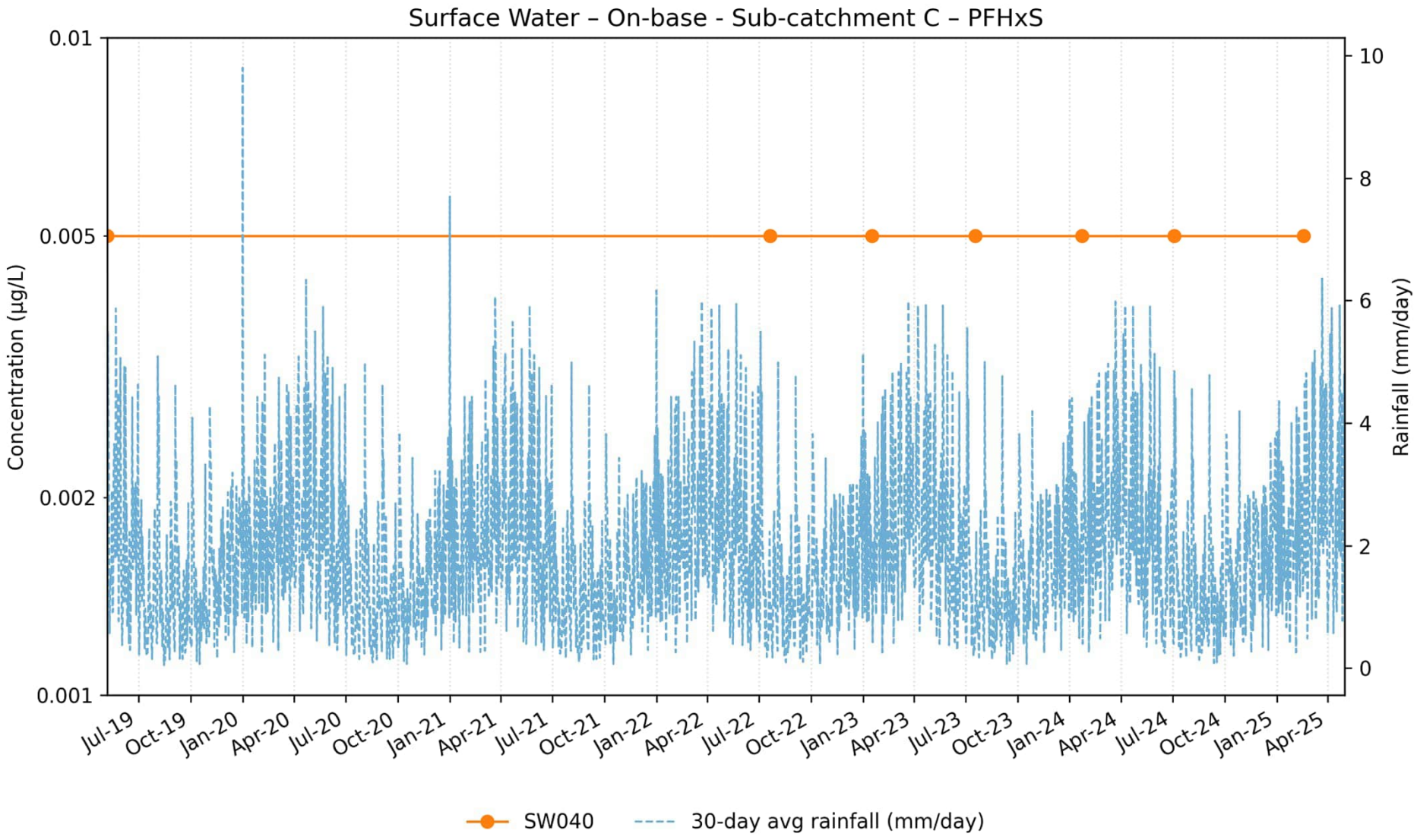
Graph G46 - Temporal Trend



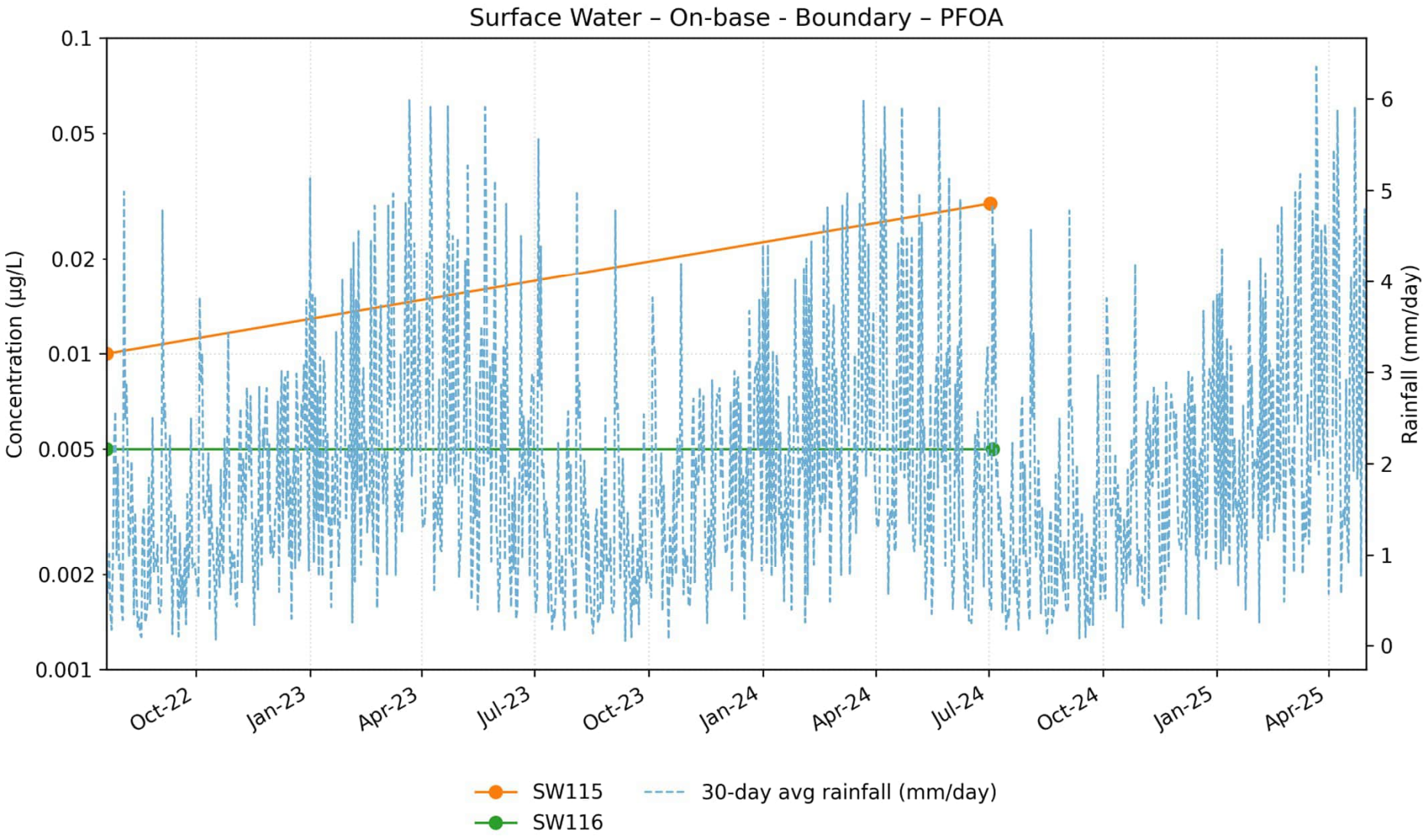
Graph G47 - Temporal Trend



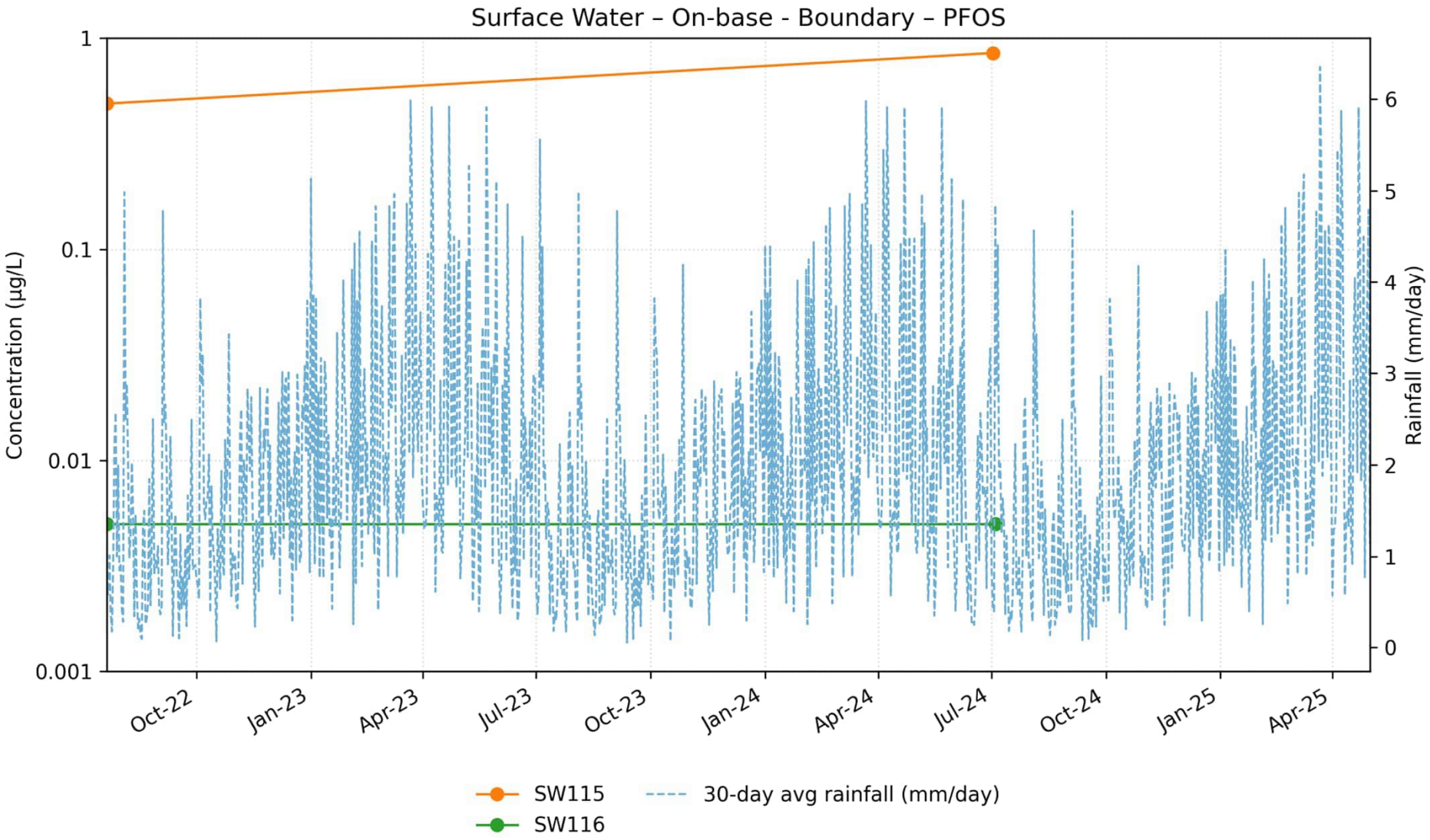
Graph G48 - Temporal Trend



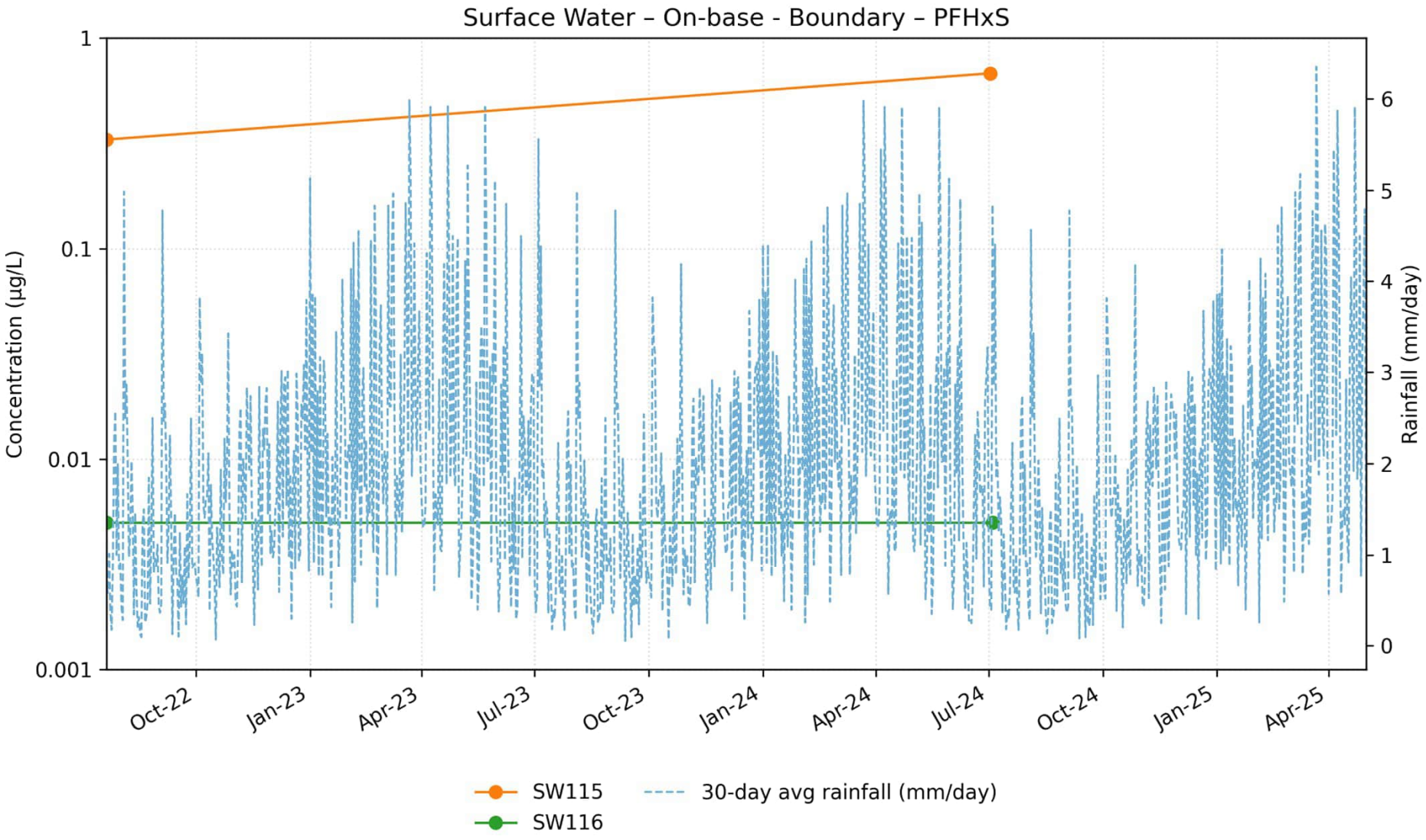
Graph G49 - Temporal Trend



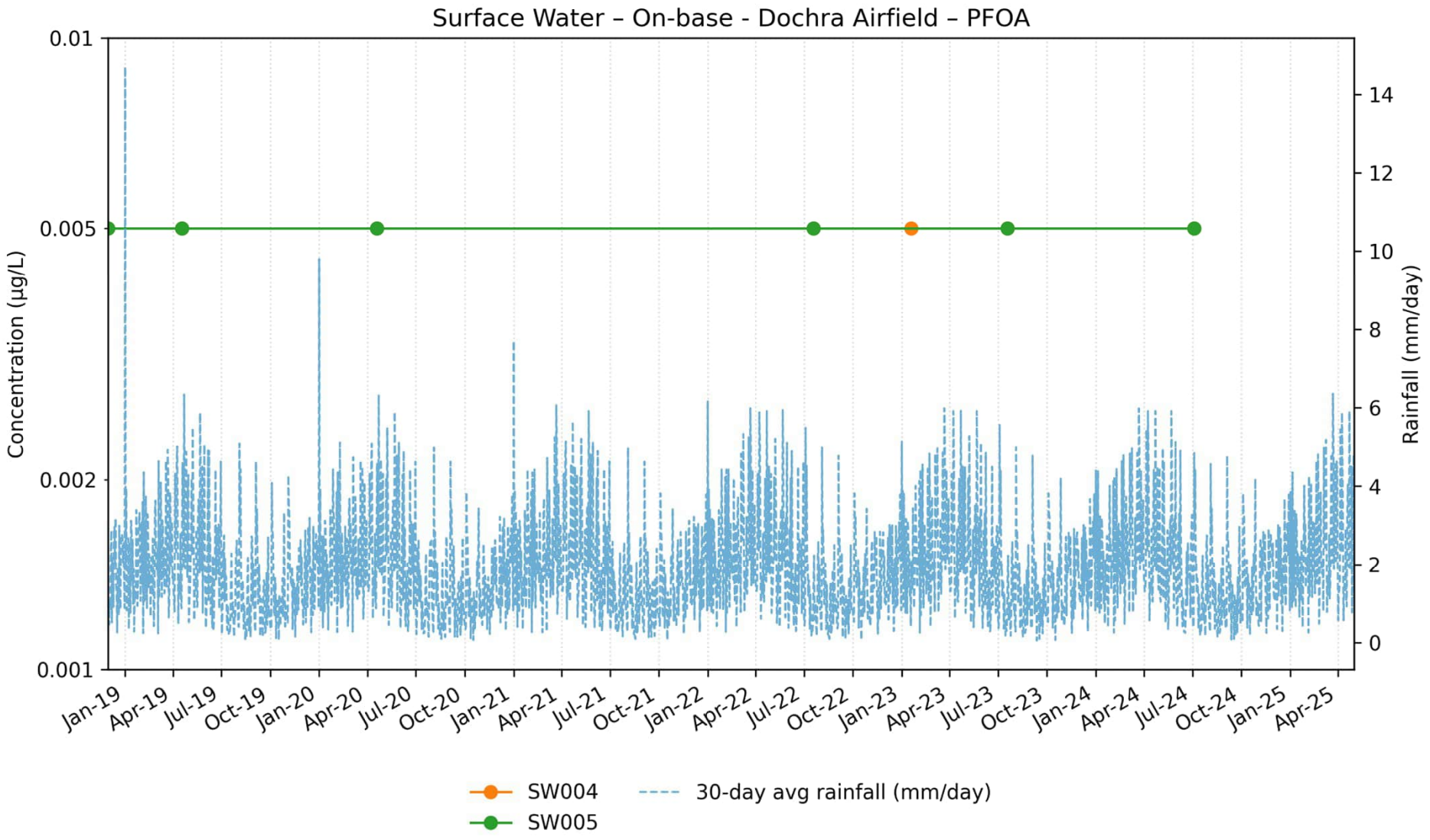
Graph G50 - Temporal Trend



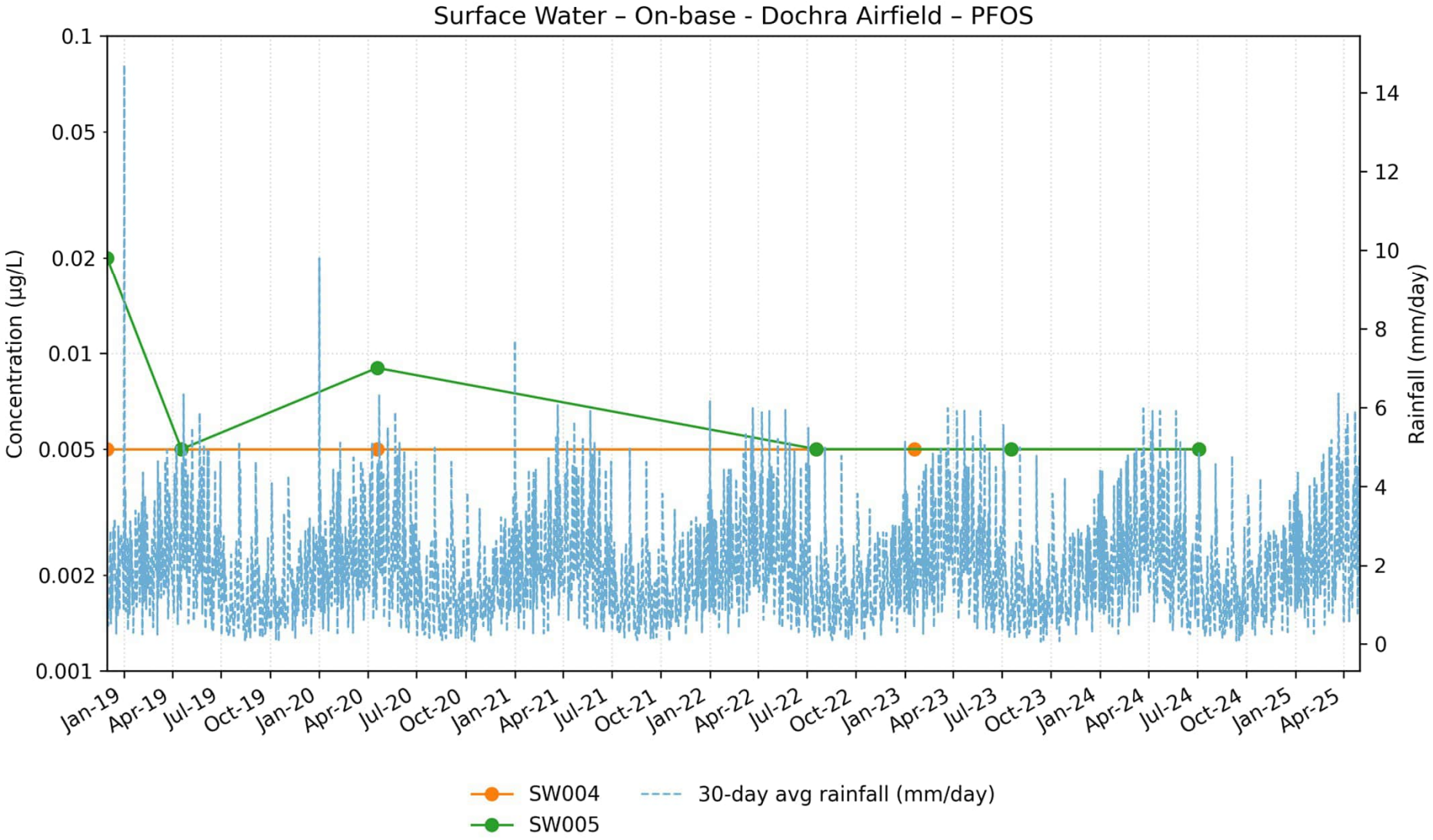
Graph G51 - Temporal Trend



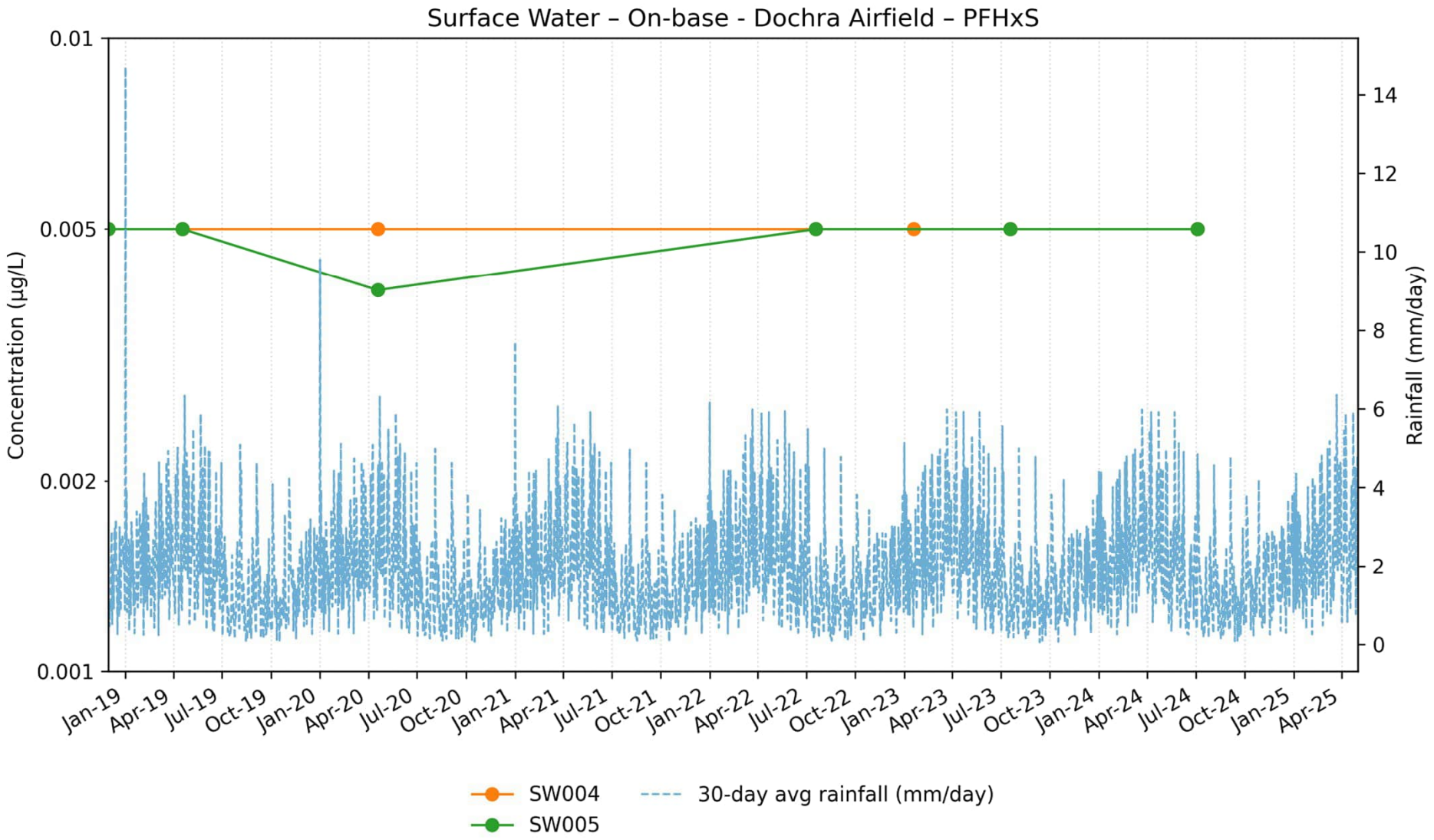
Graph G52 - Temporal Trend



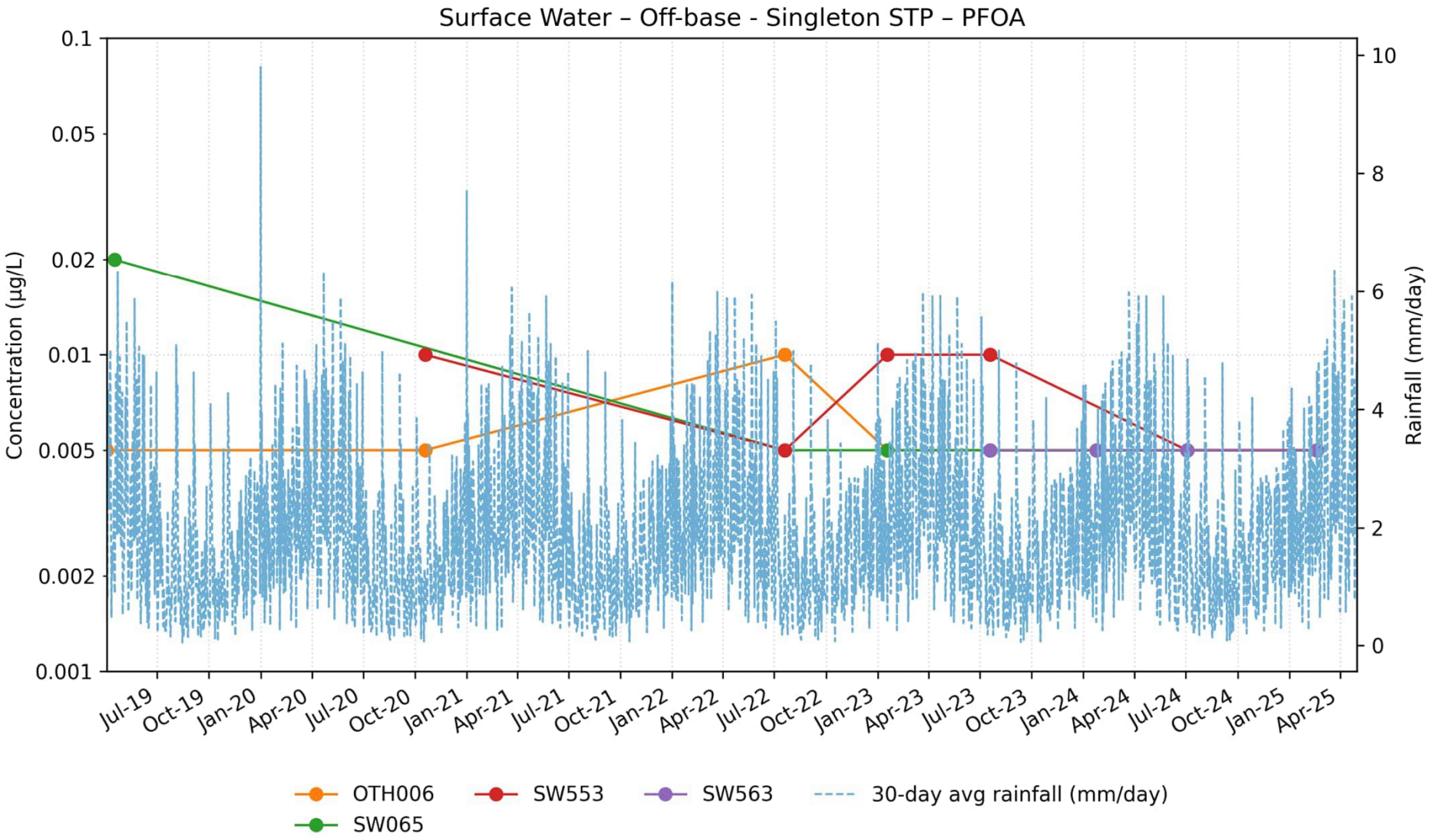
Graph G53 - Temporal Trend



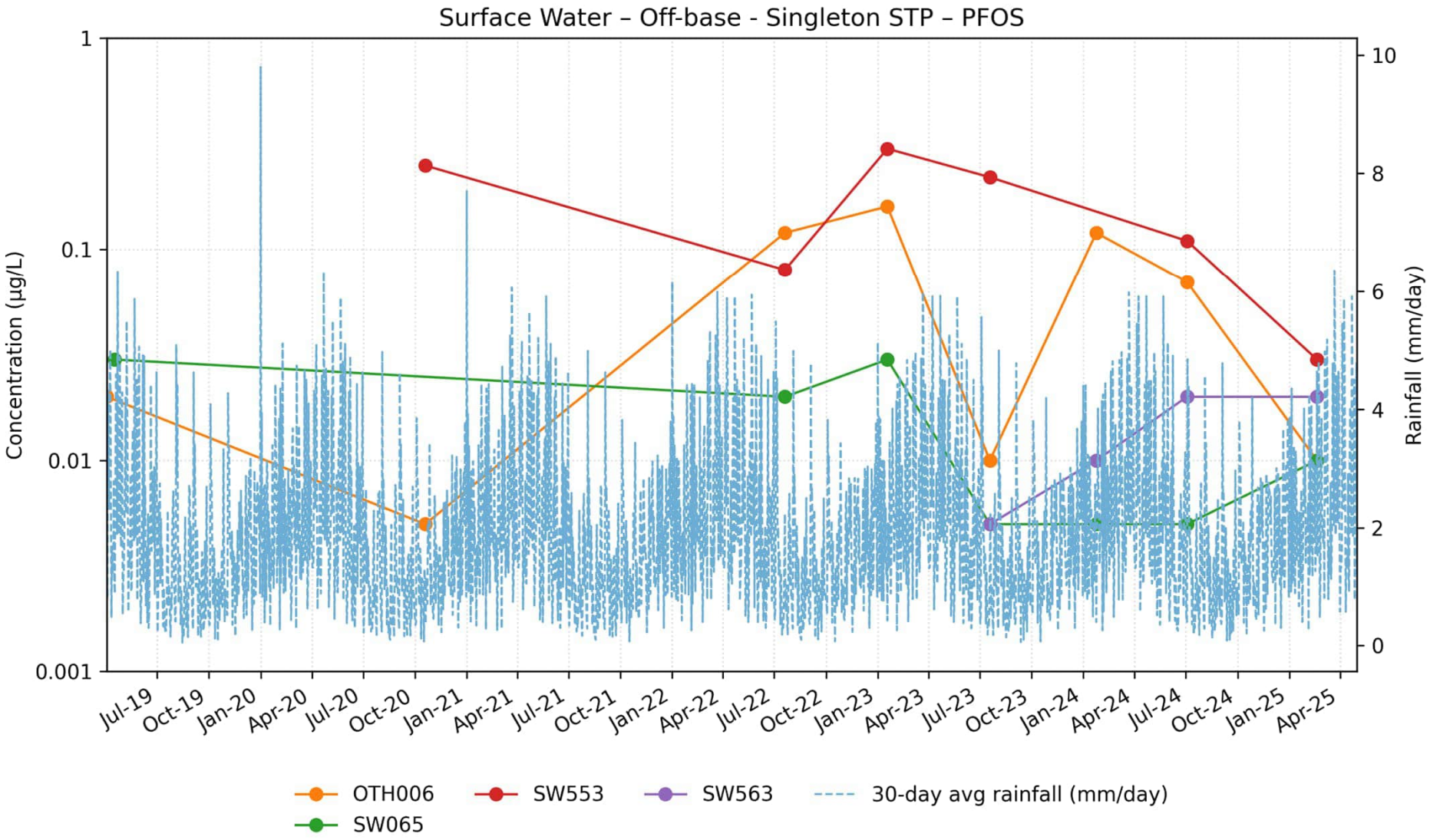
Graph G54 - Temporal Trend



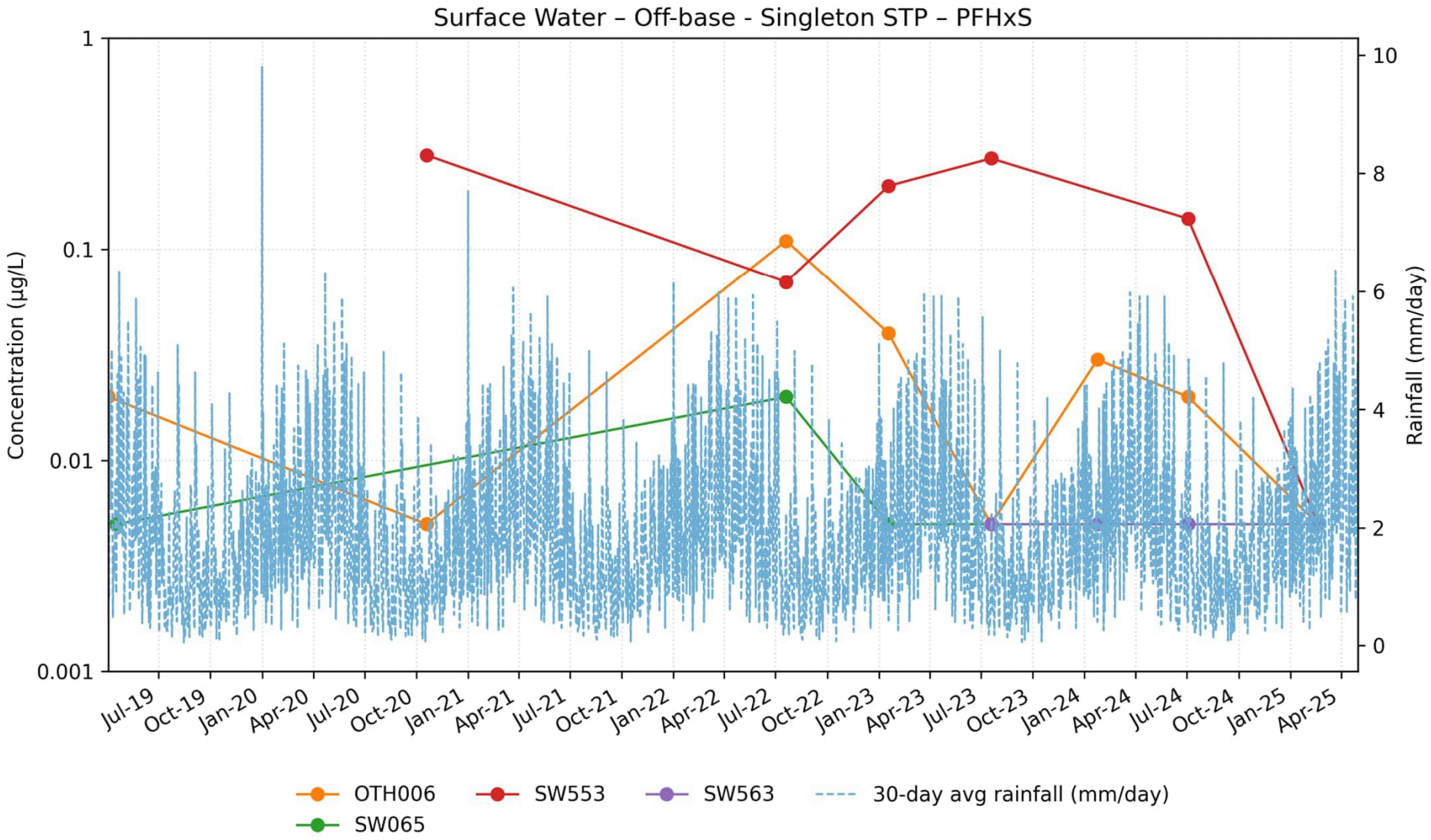
Graph G55 - Temporal Trend



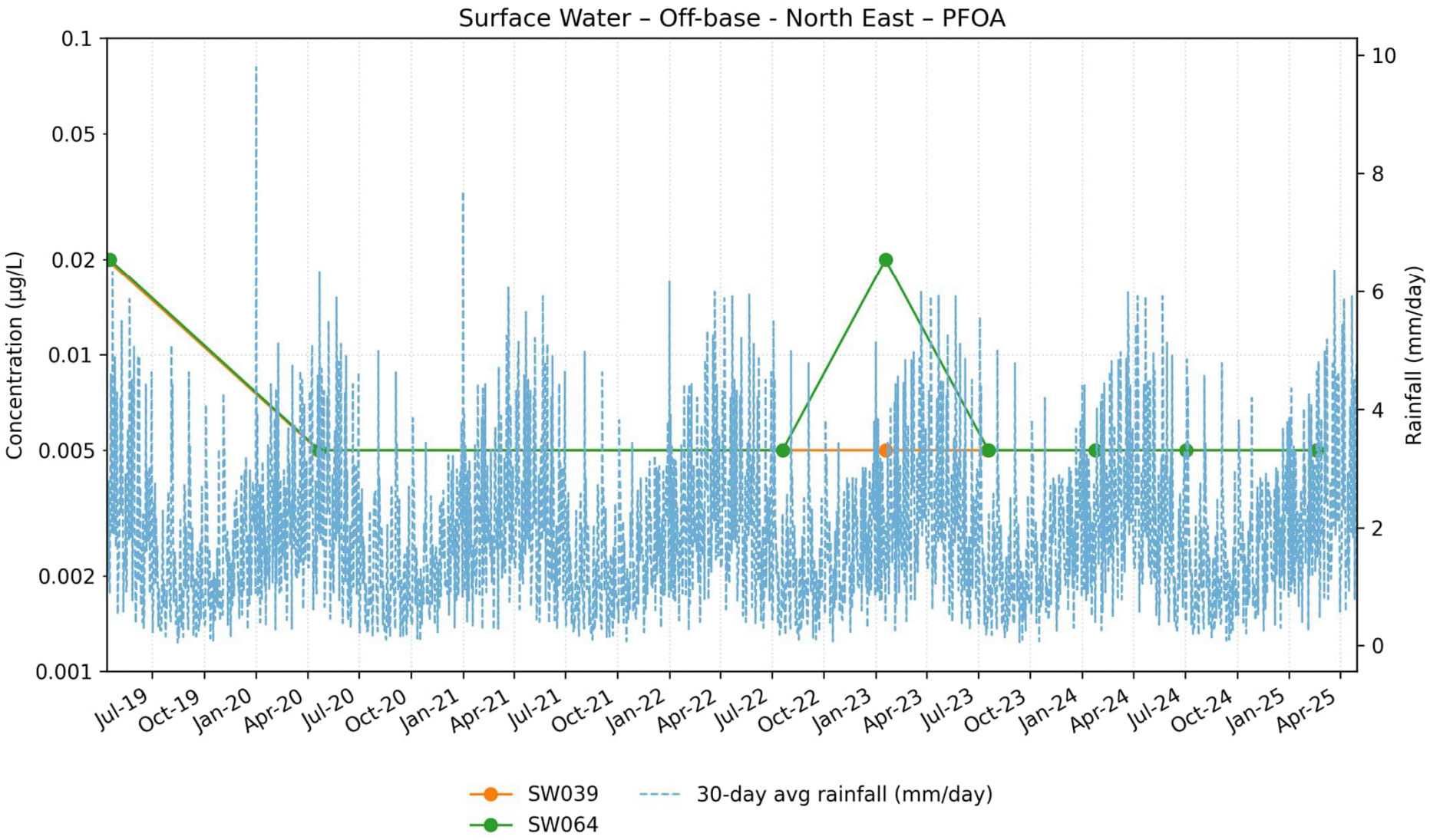
Graph G56 - Temporal Trend



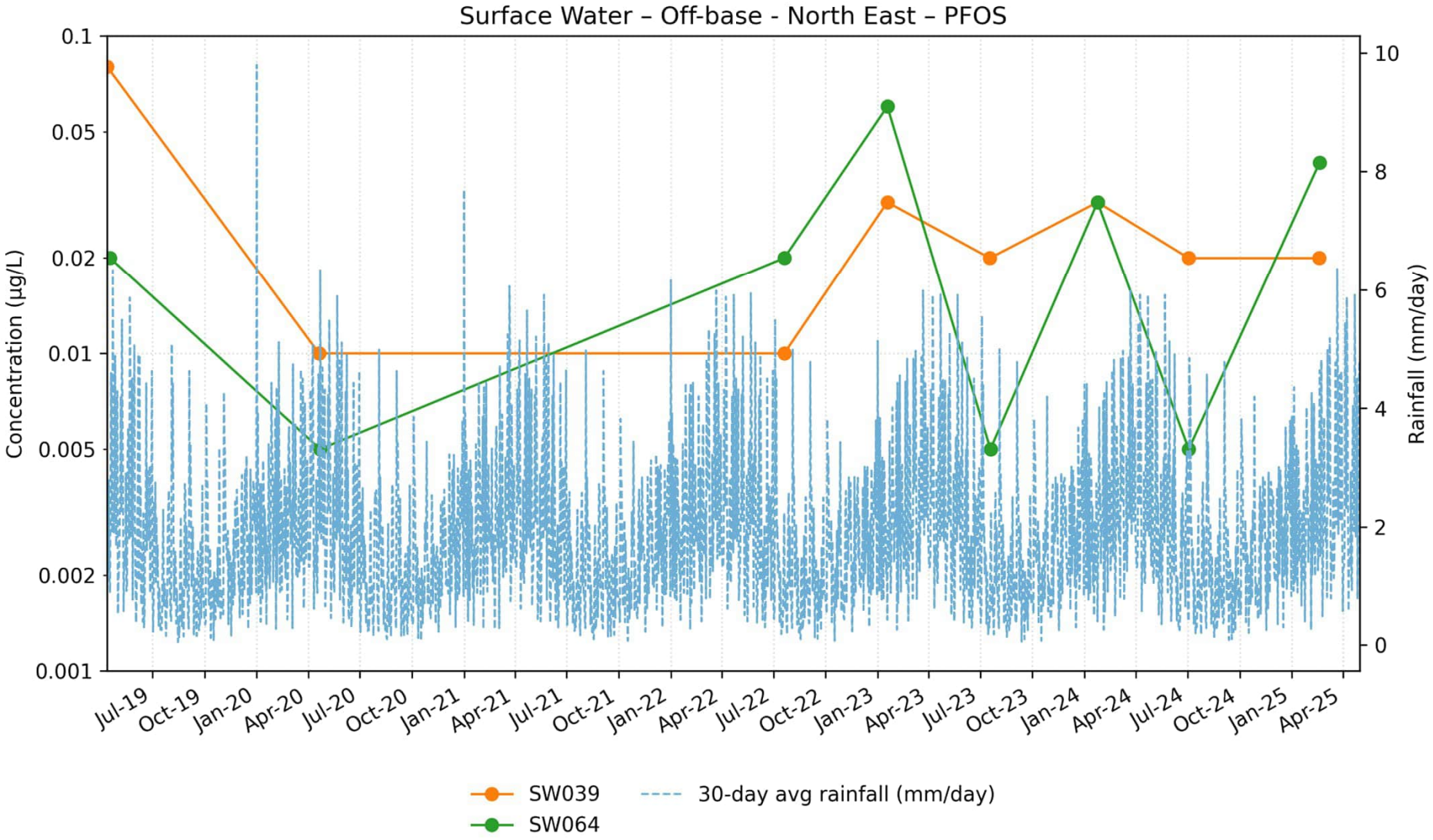
Graph G57 - Temporal Trend



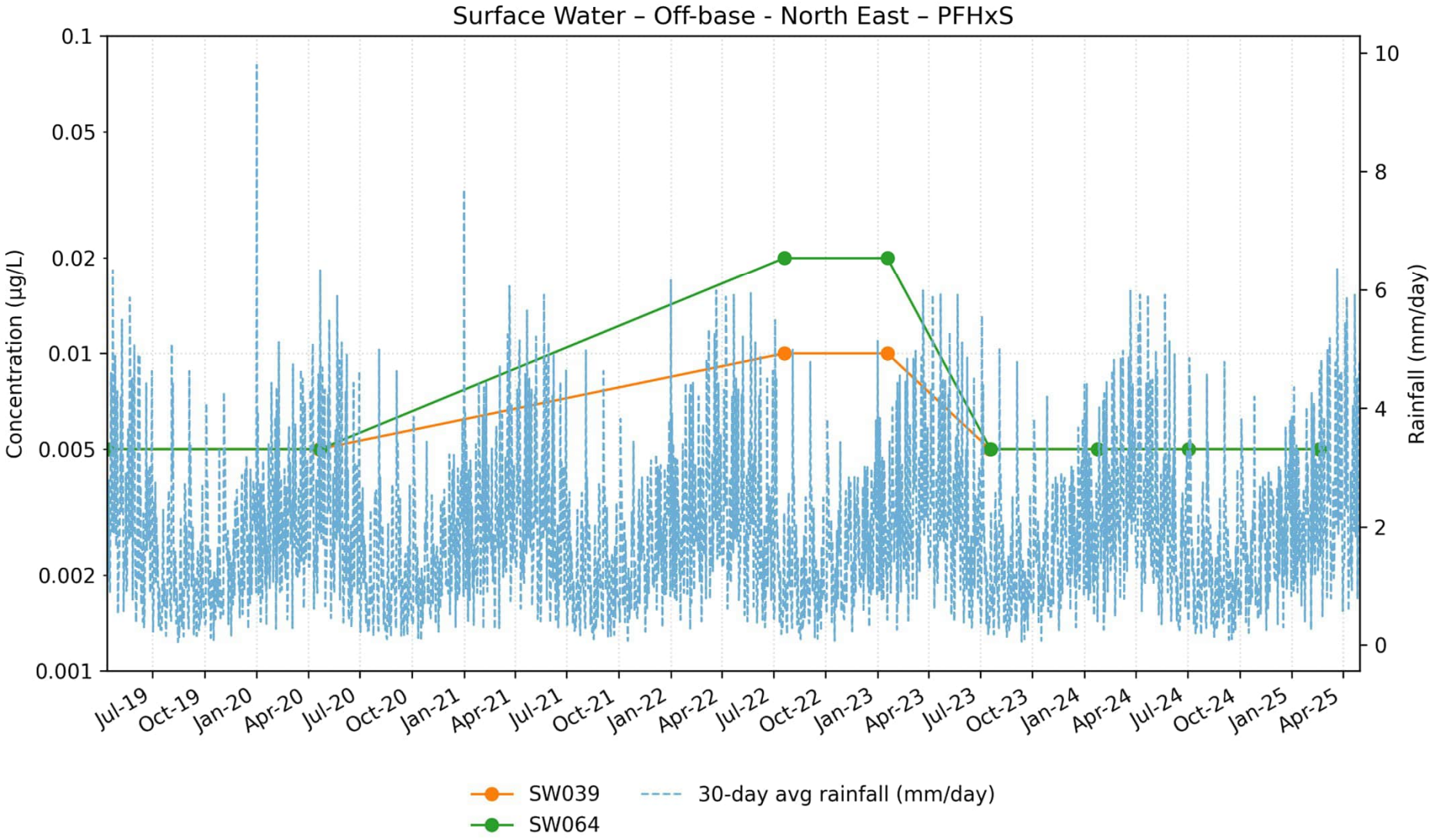
Graph G58 - Temporal Trend



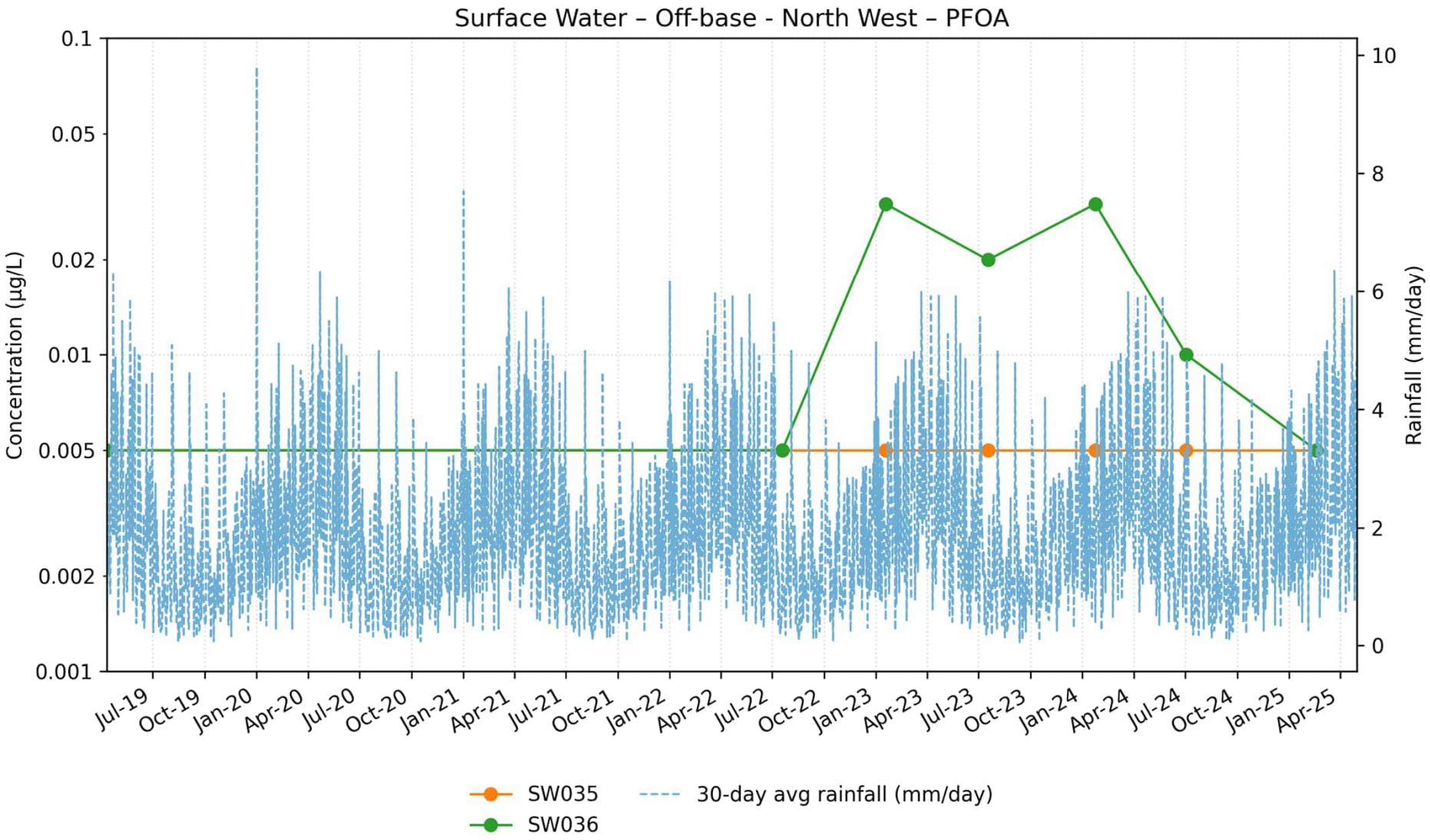
Graph G59 - Temporal Trend



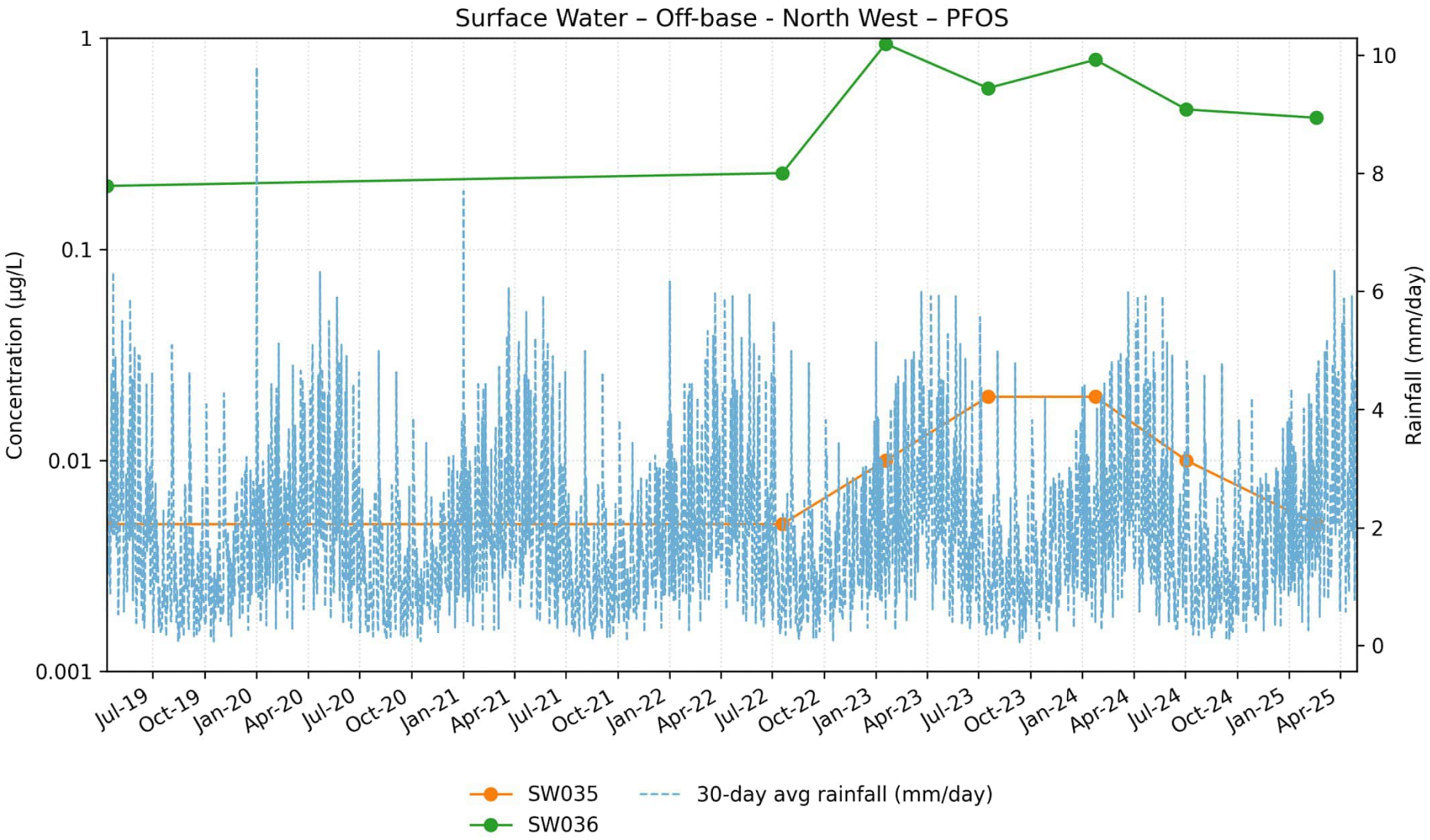
Graph G60 - Temporal Trend



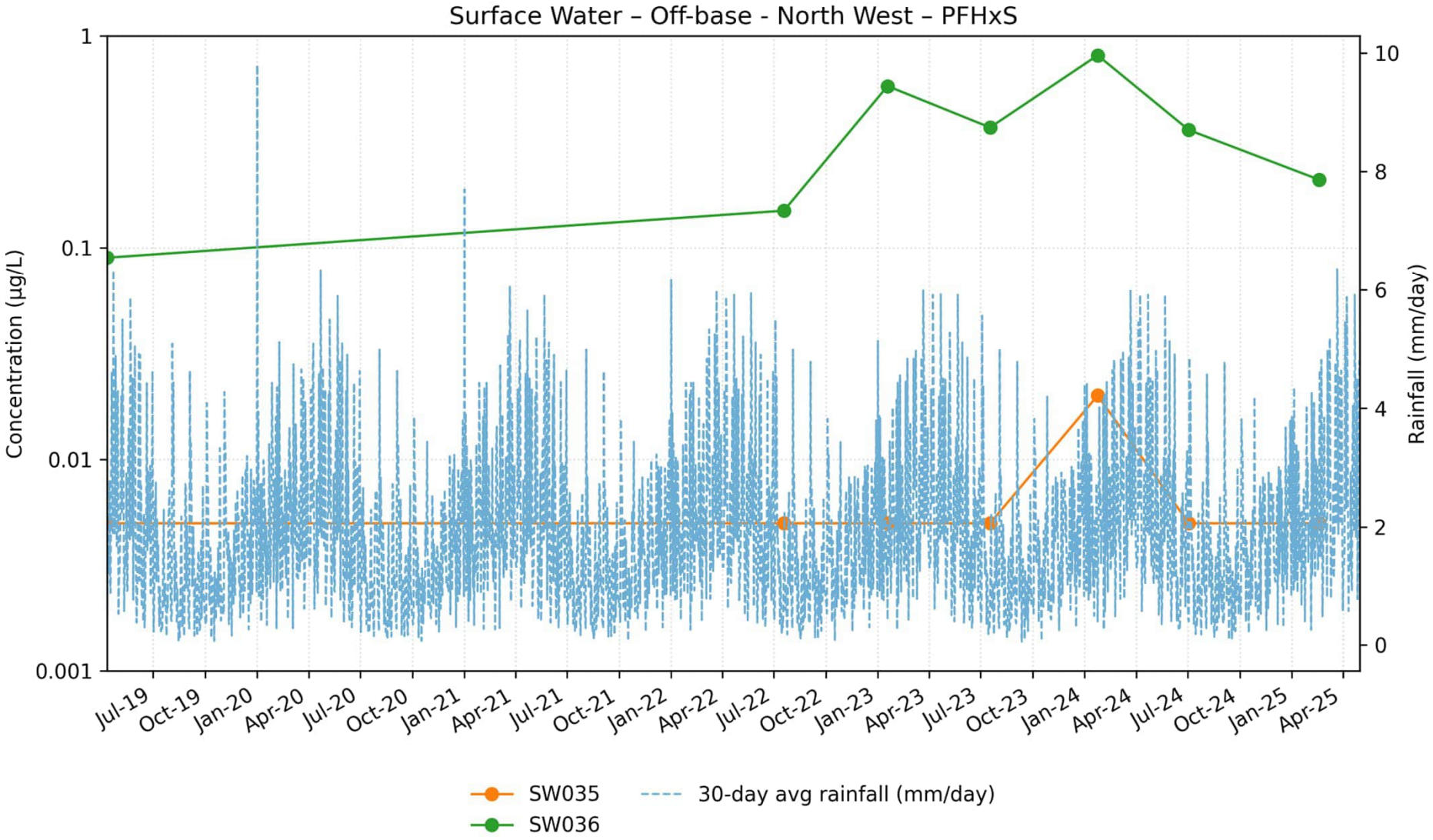
Graph G61 - Temporal Trend



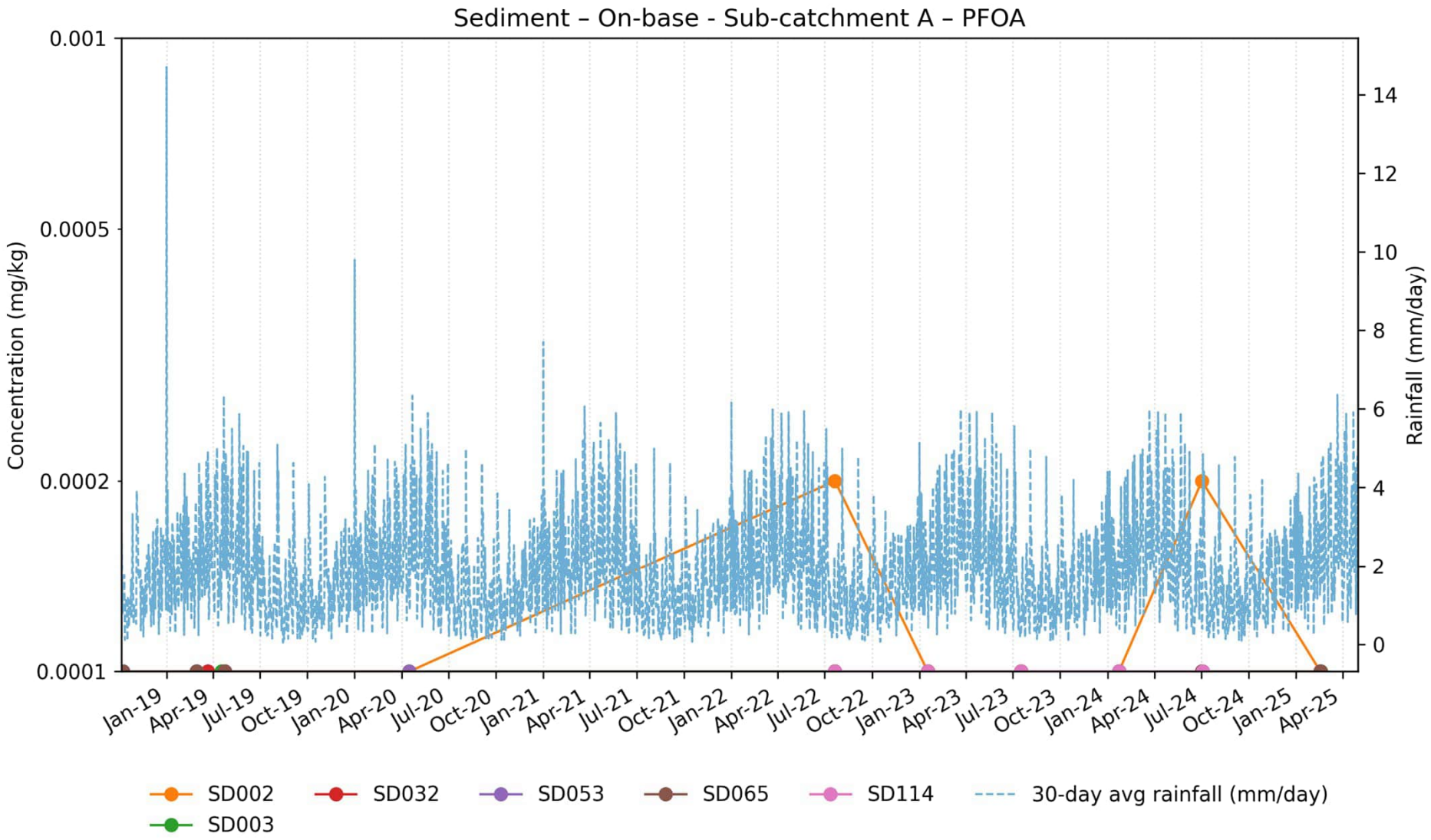
Graph G62 - Temporal Trend



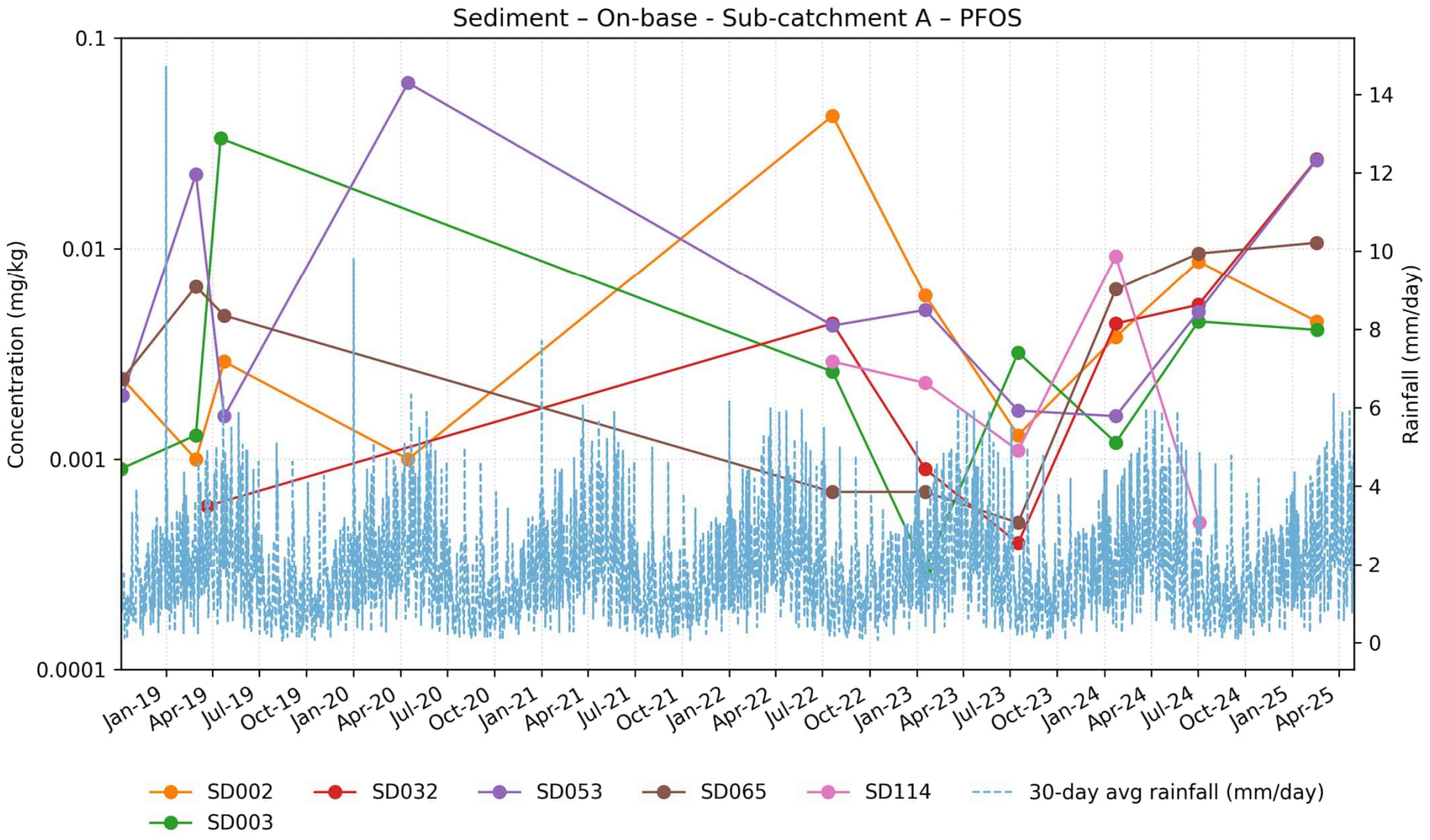
Graph G63 - Temporal Trend



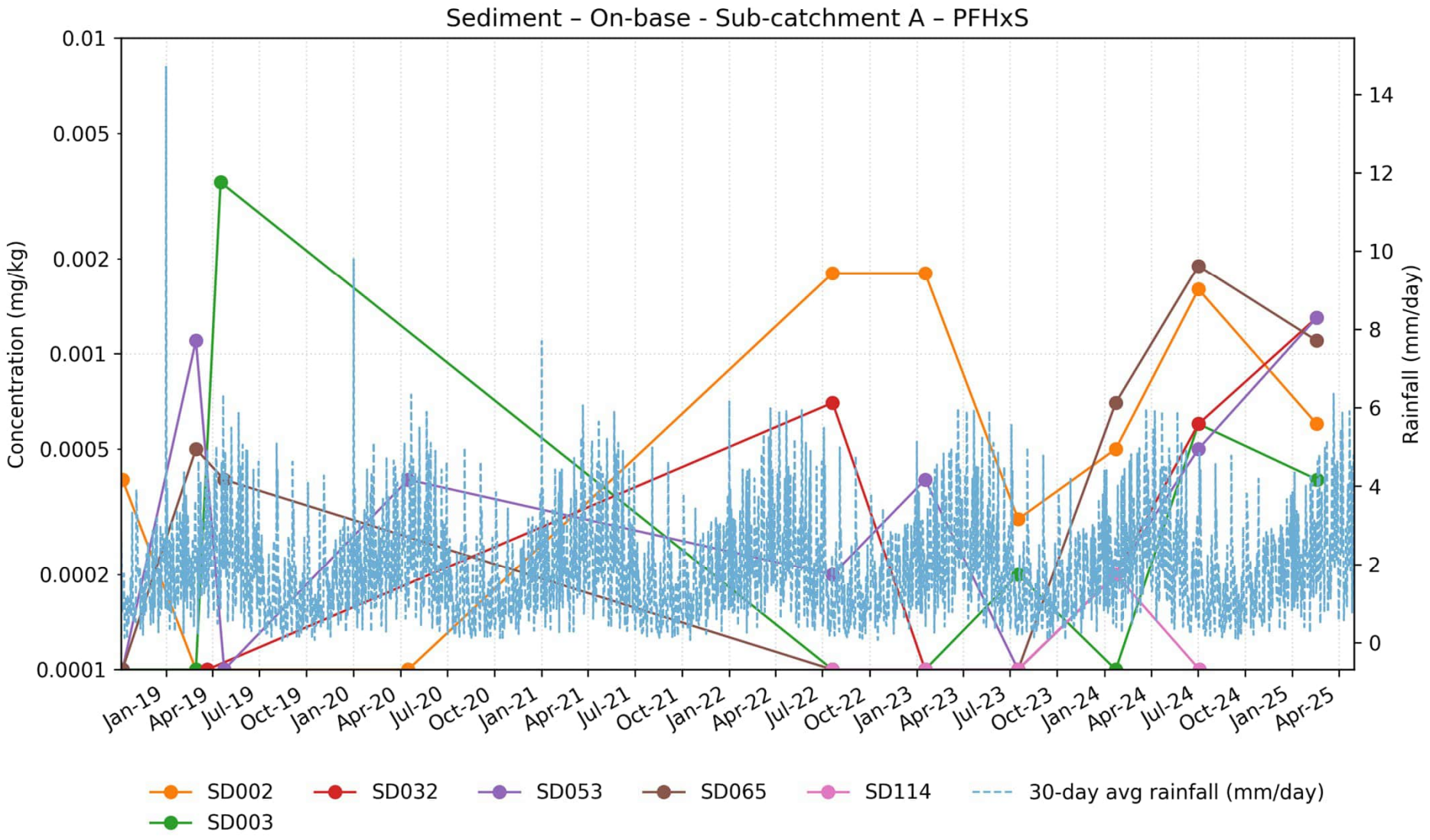
Graph G64 - Temporal Trend



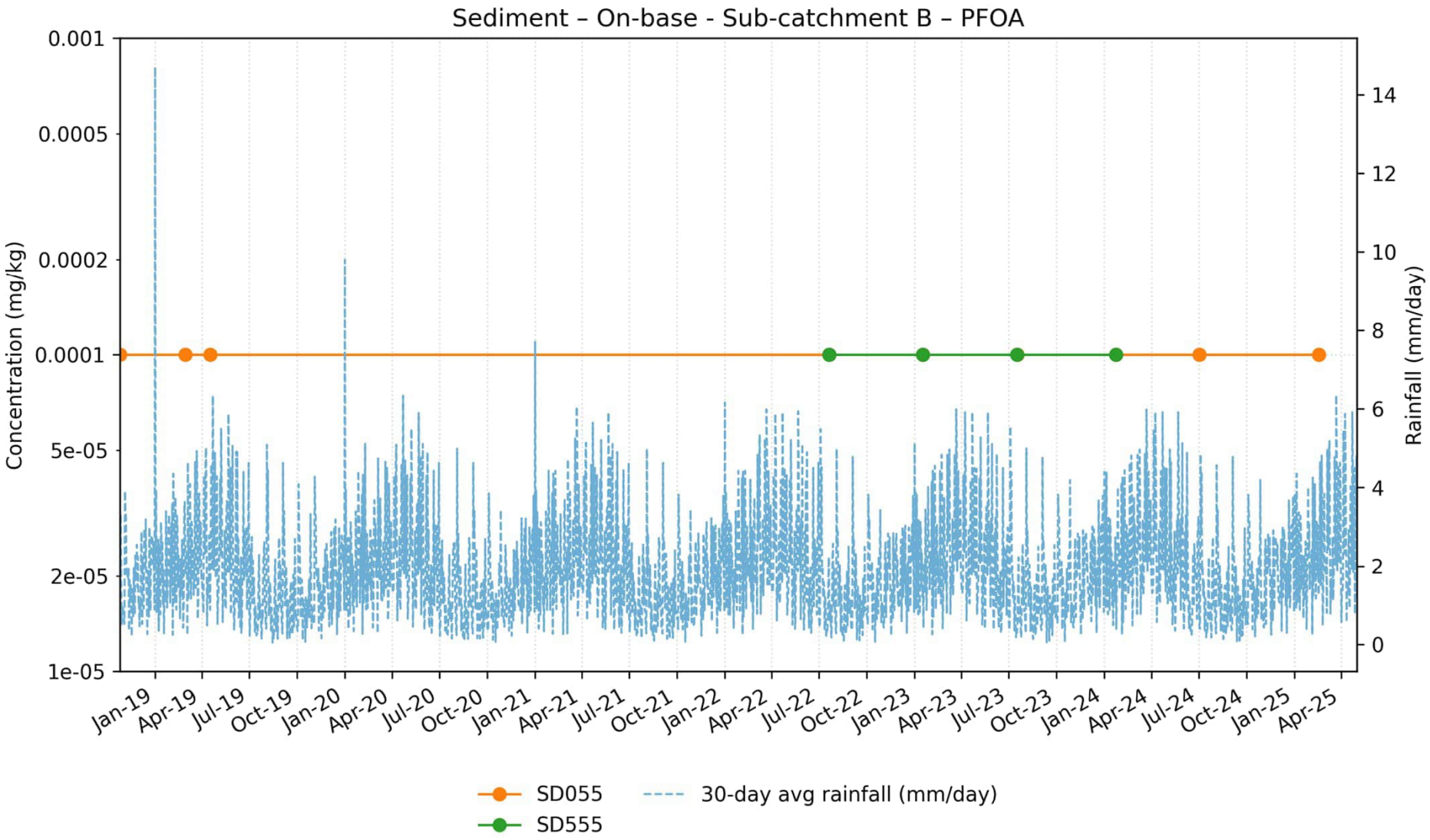
Graph G65 - Temporal Trend



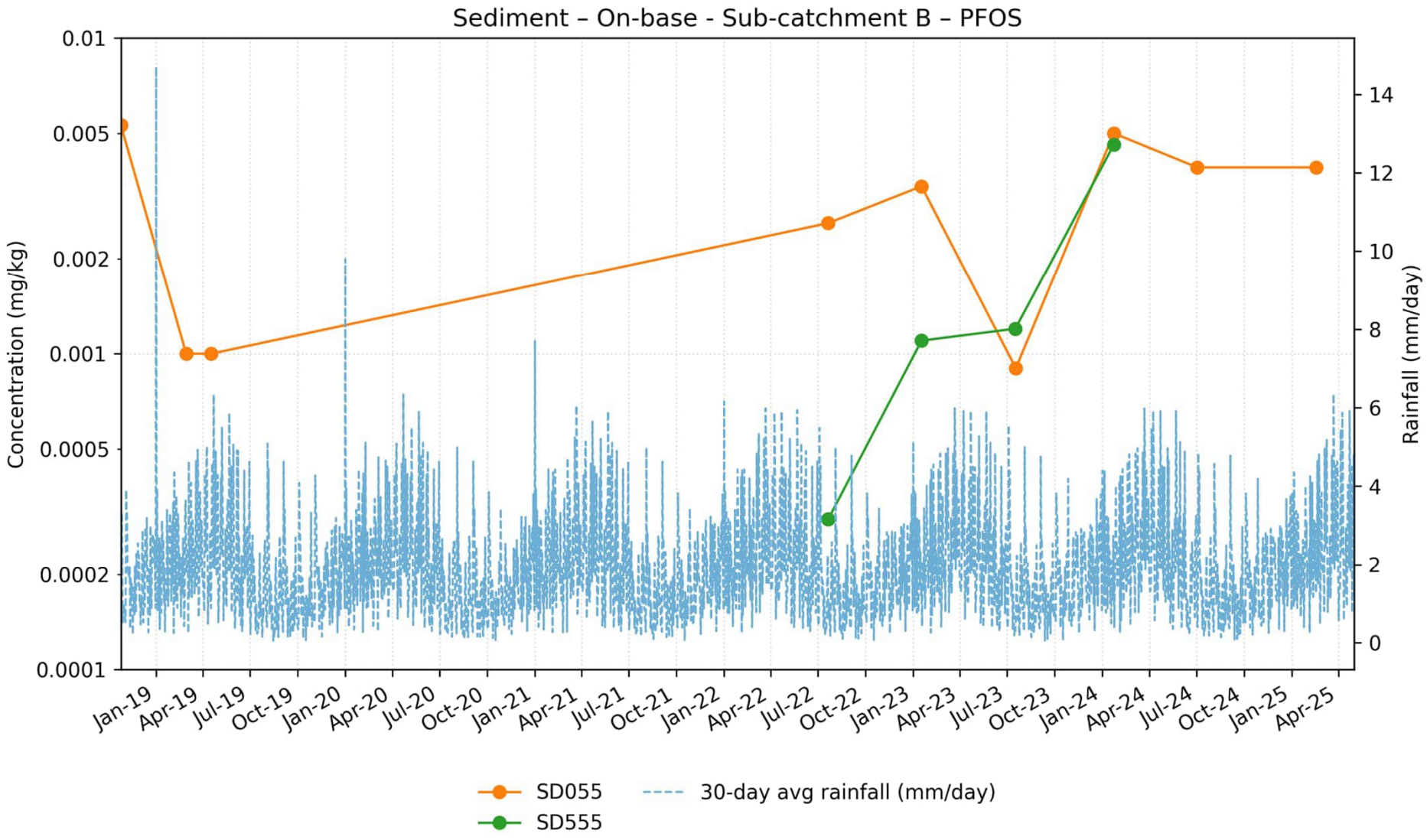
Graph G66 - Temporal Trend



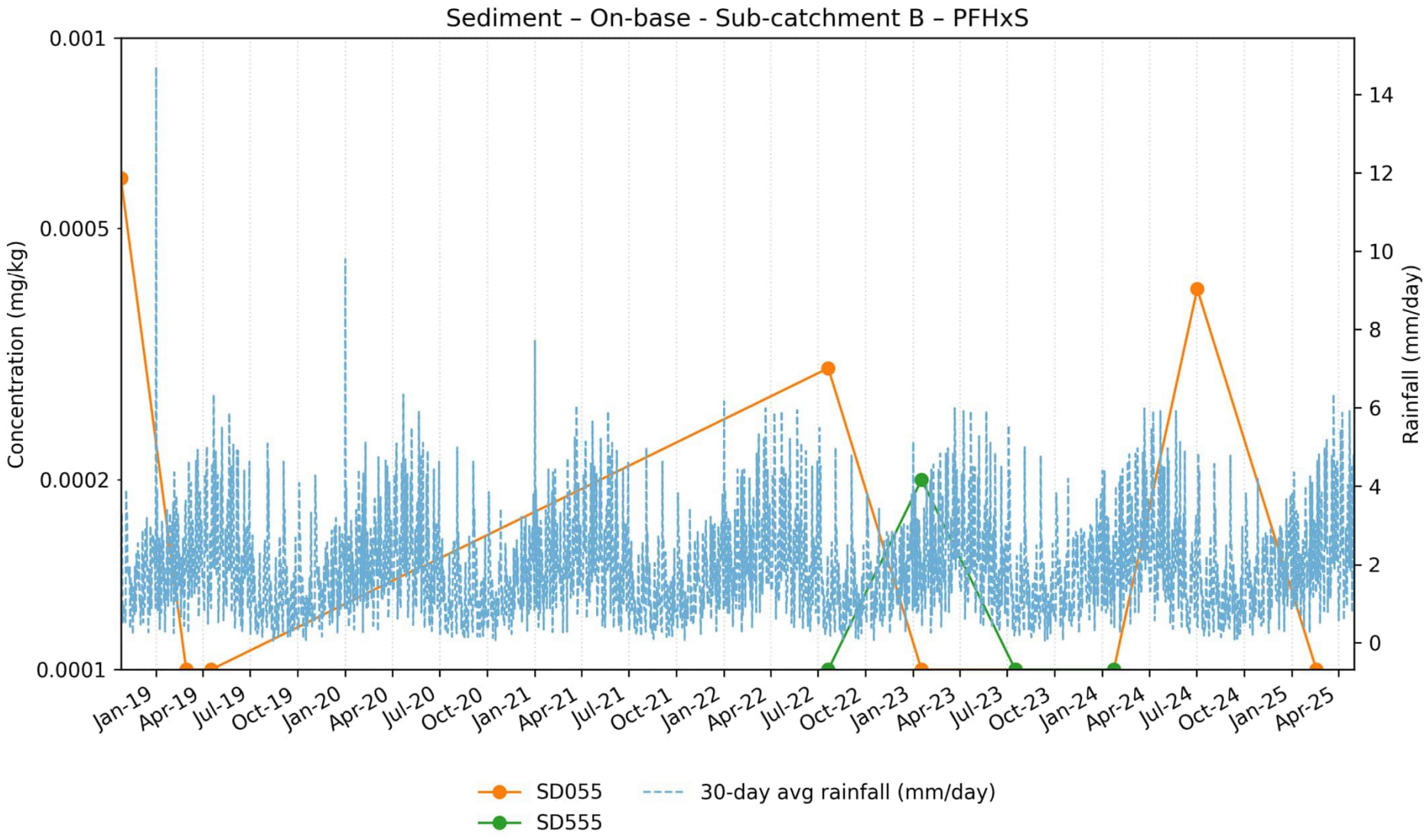
Graph G67 - Temporal Trend



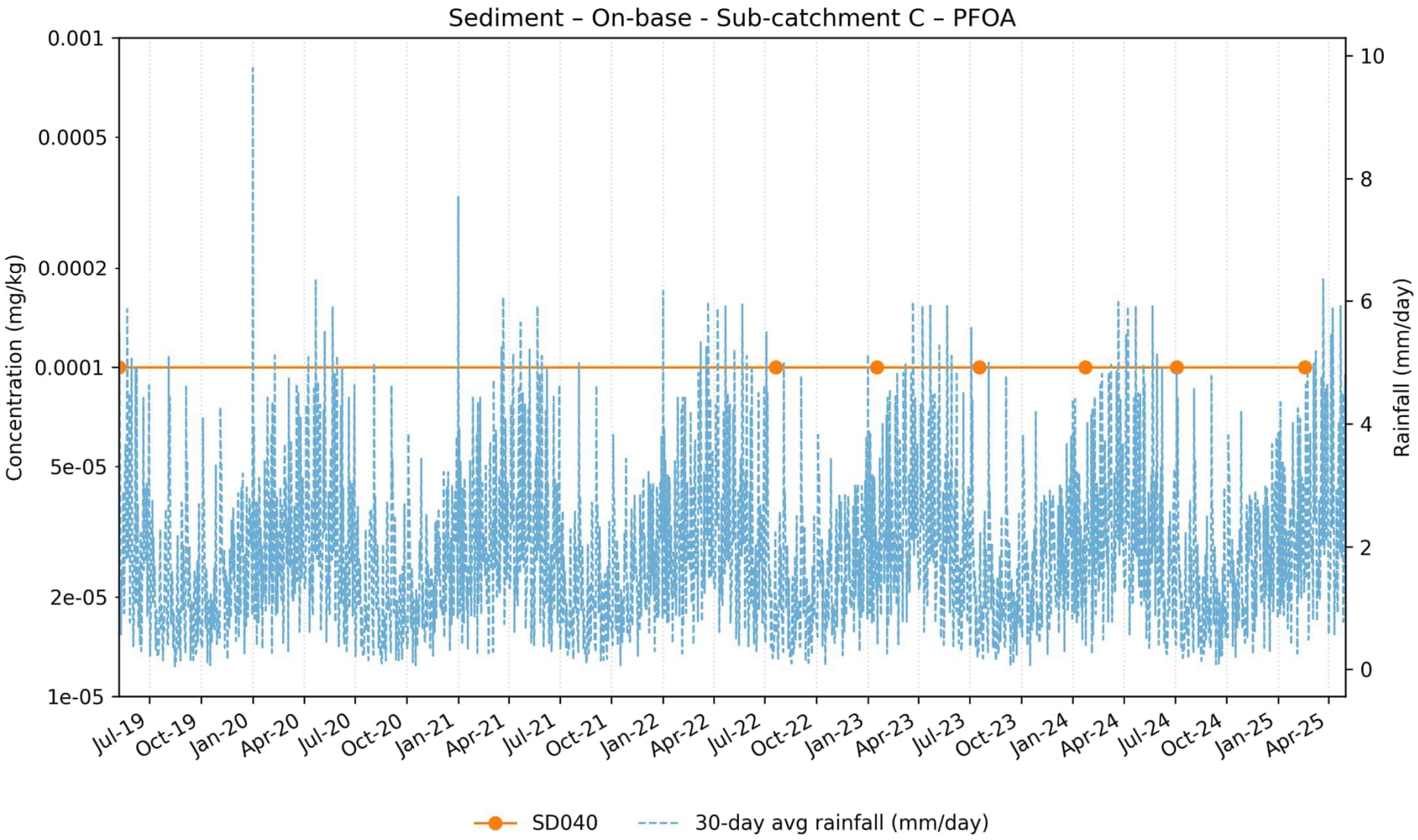
Graph G68 - Temporal Trend



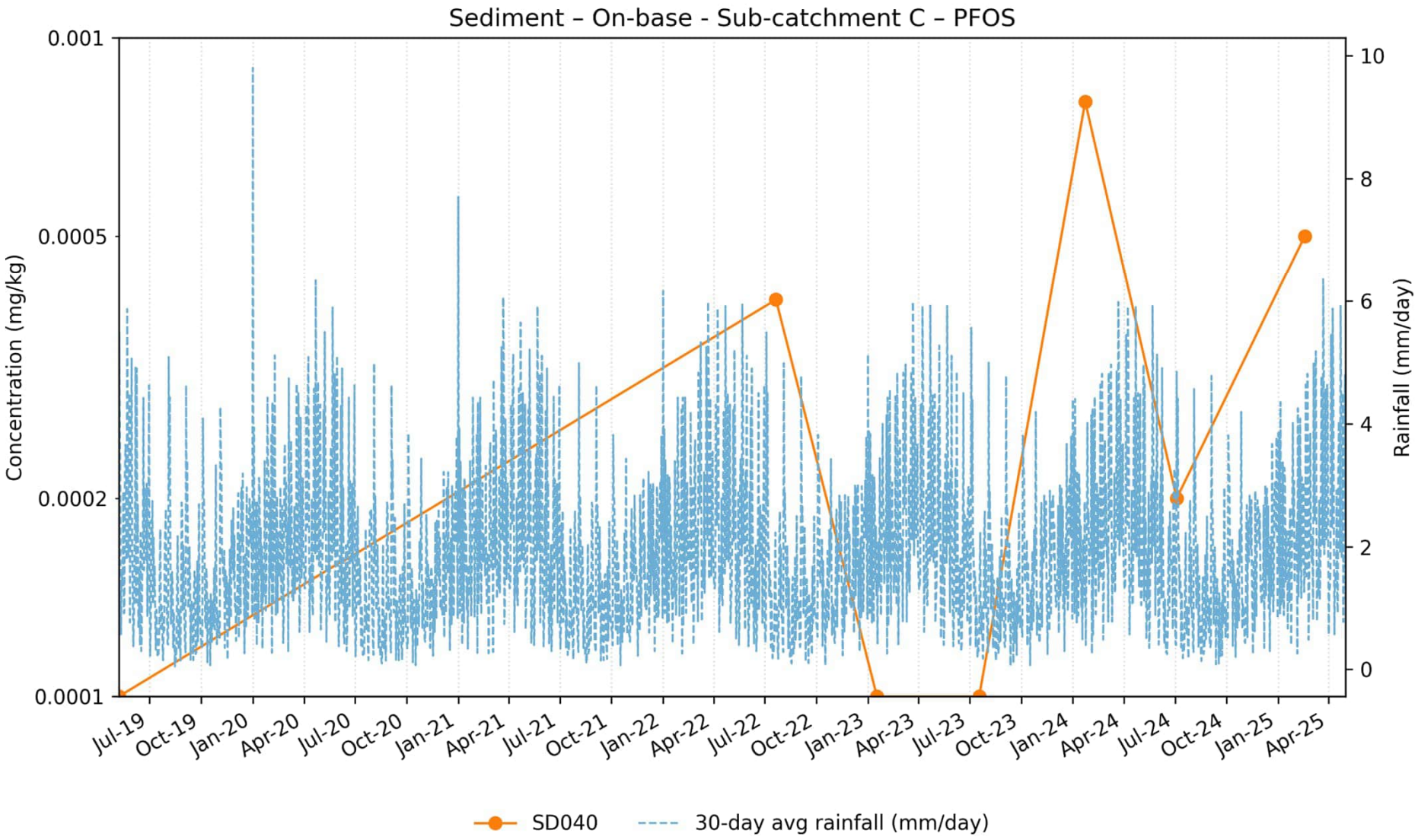
Graph G69 - Temporal Trend



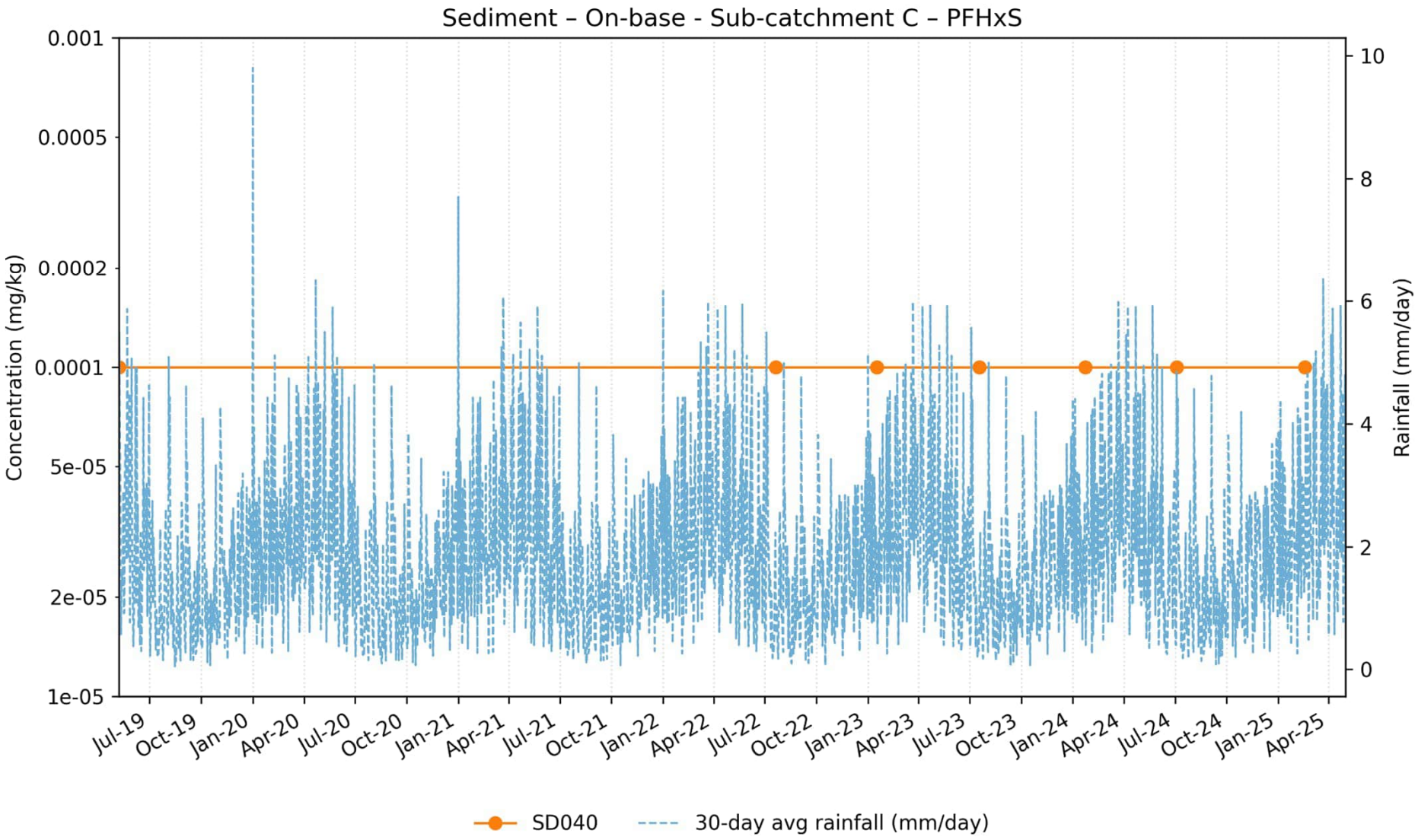
Graph G70 - Temporal Trend



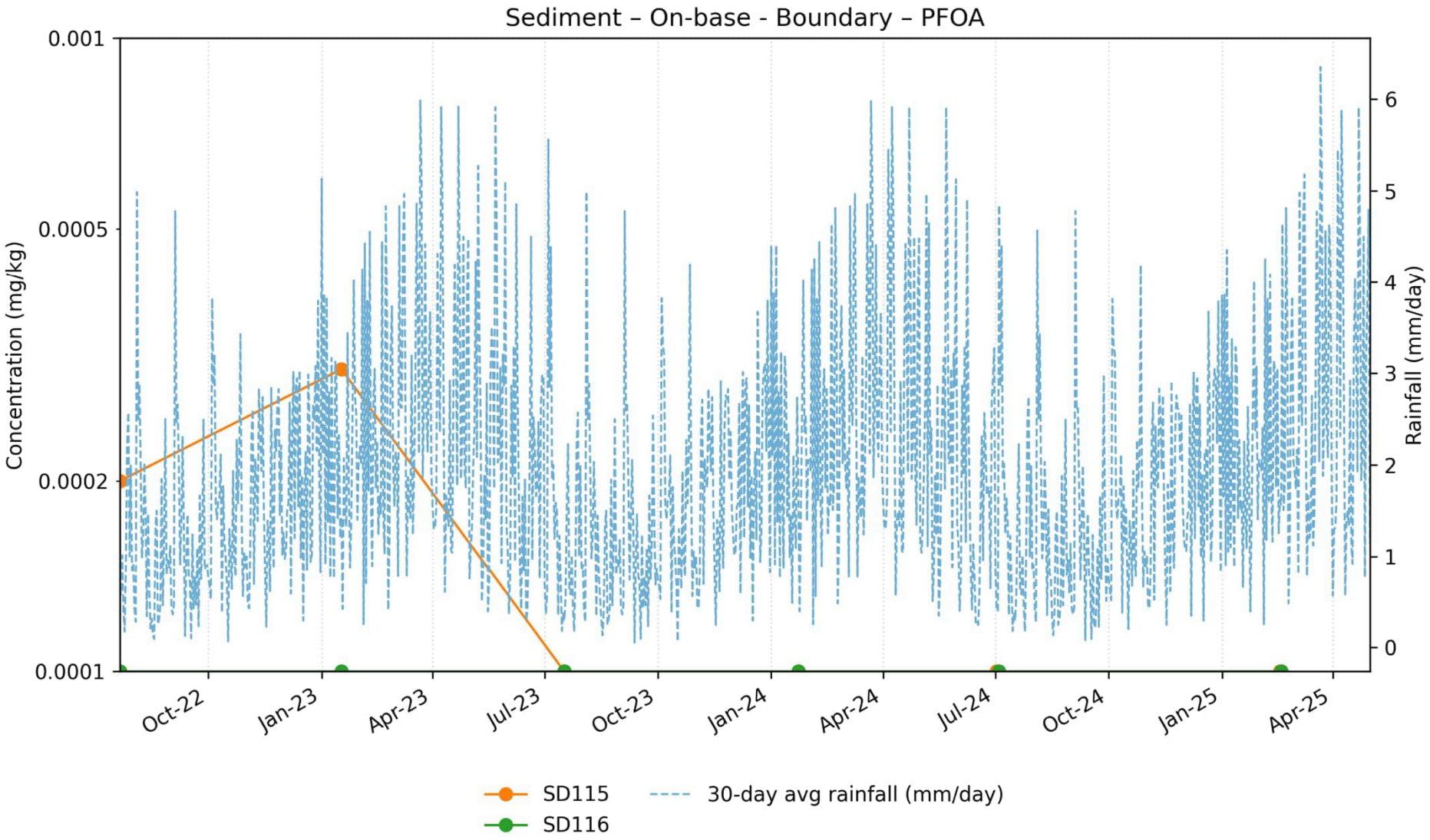
Graph G71 - Temporal Trend



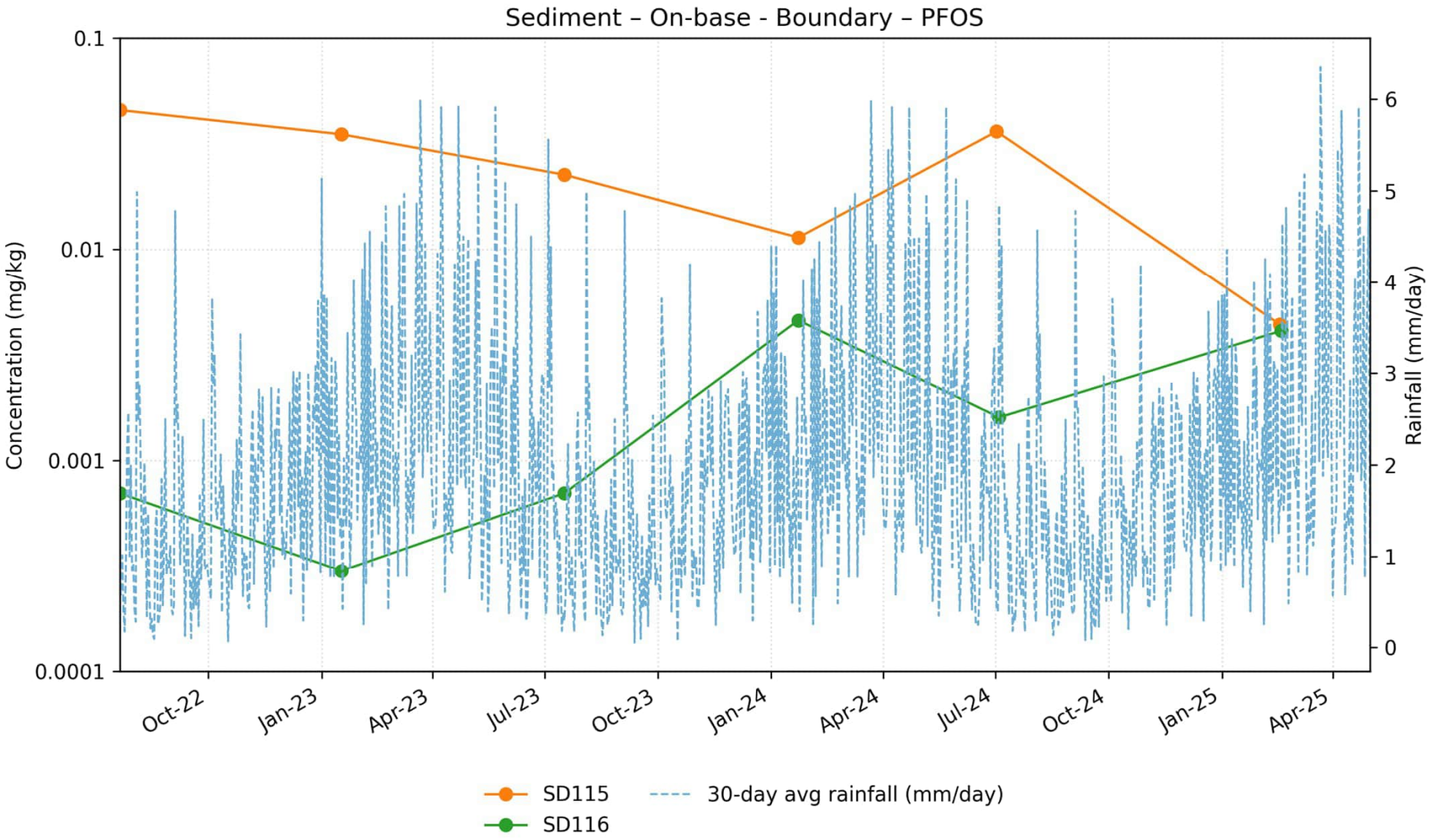
Graph G72 - Temporal Trend



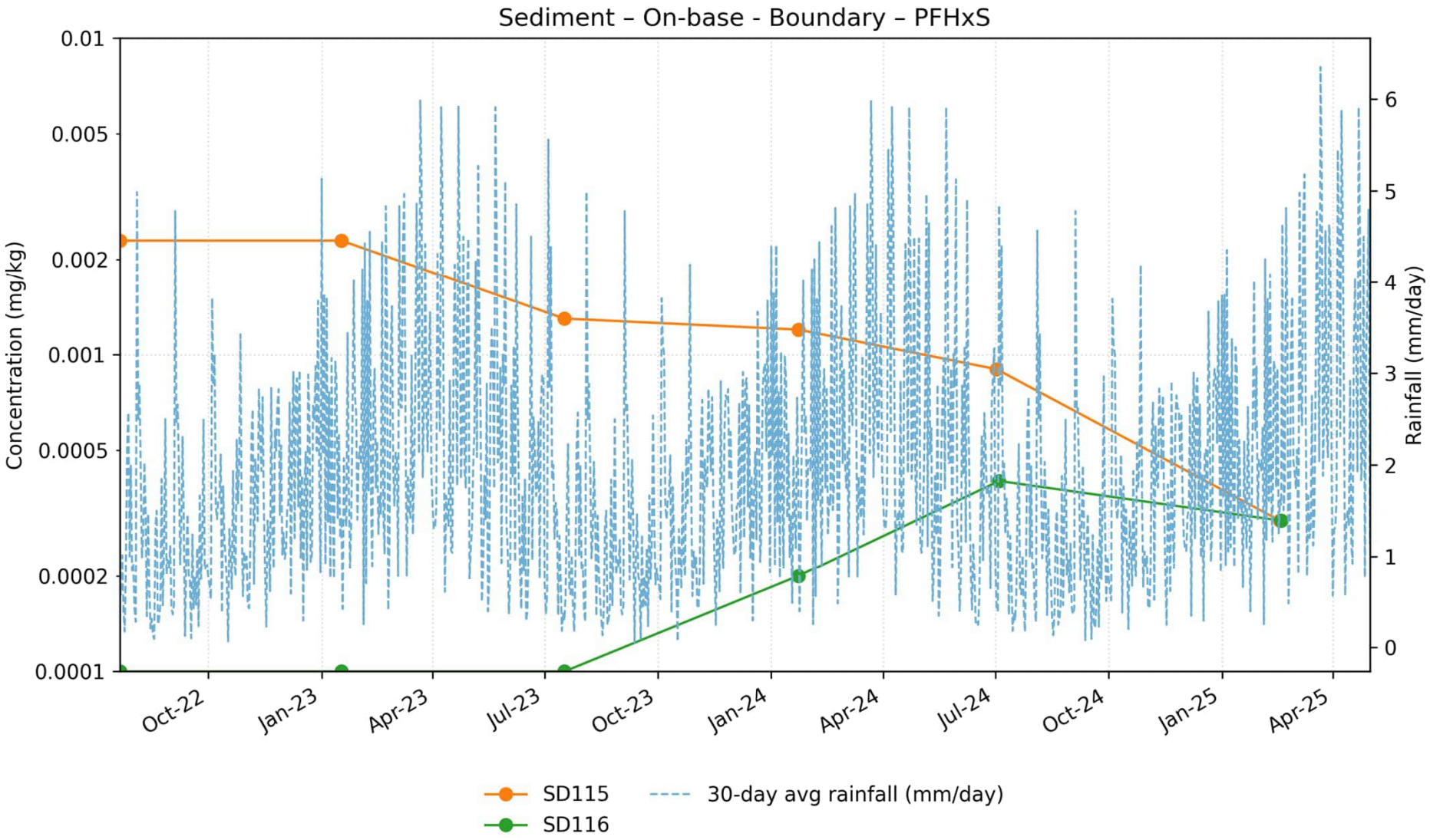
Graph G73 - Temporal Trend



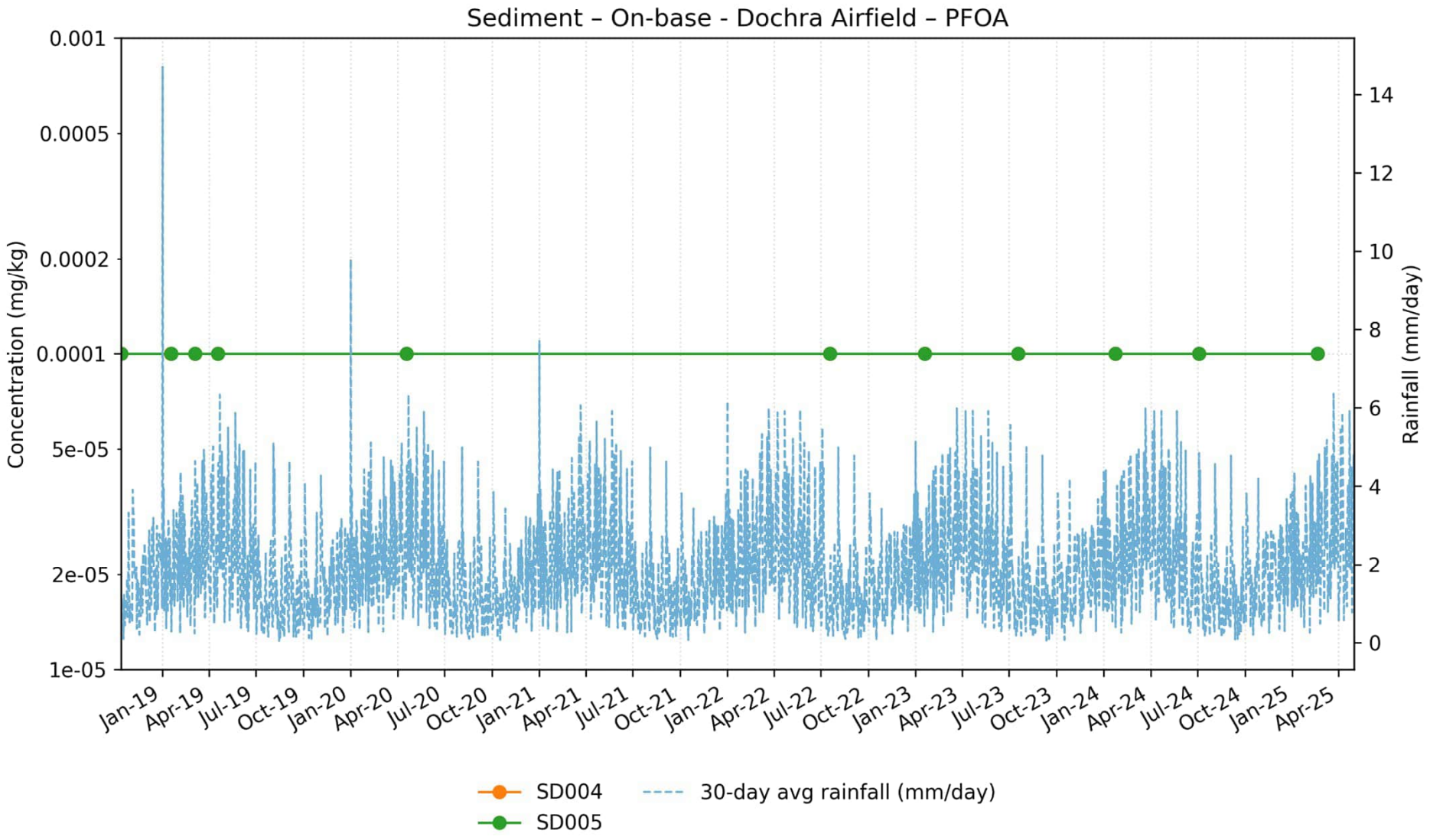
Graph G74 - Temporal Trend



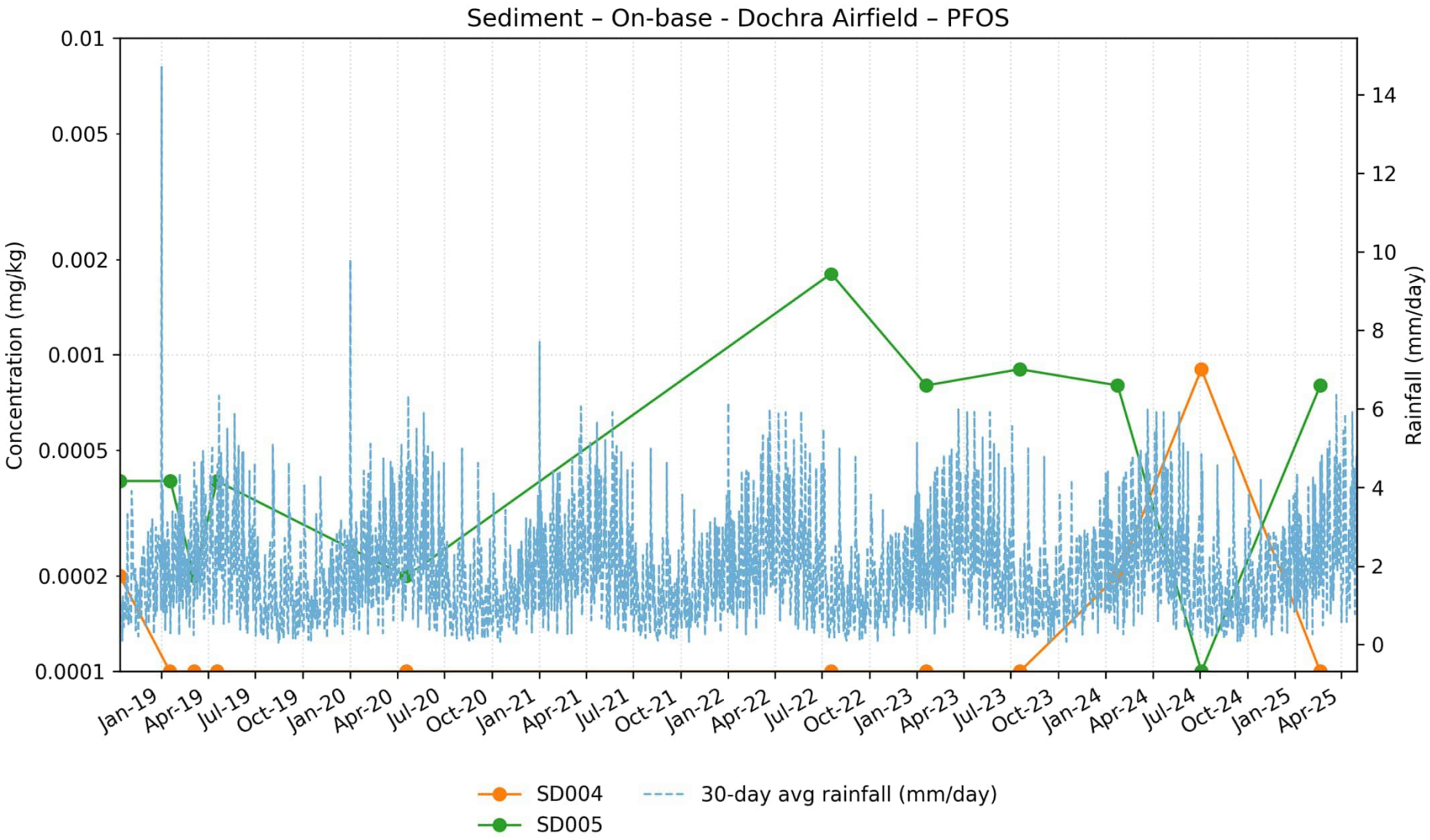
Graph G75 - Temporal Trend



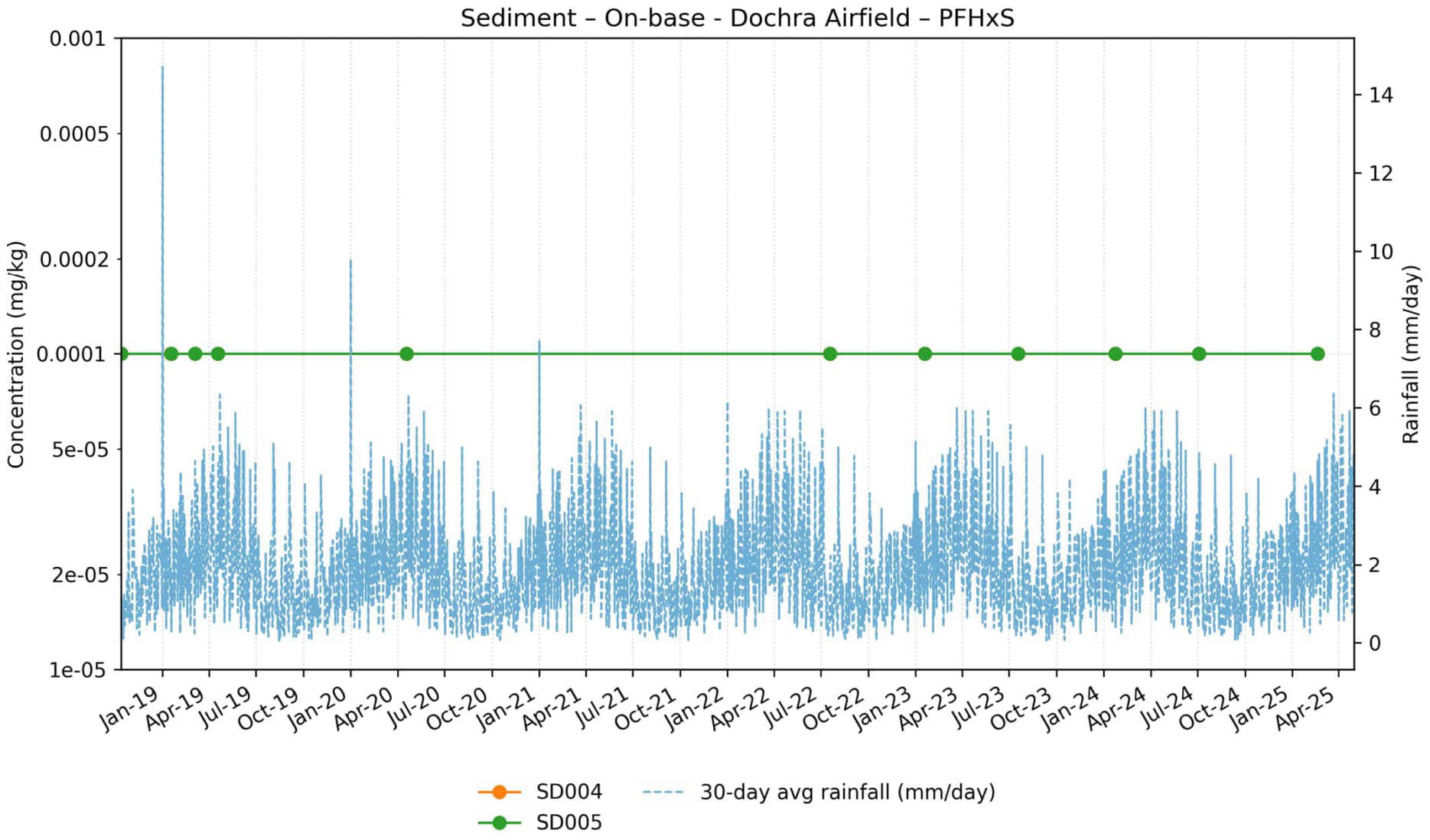
Graph G76 - Temporal Trend



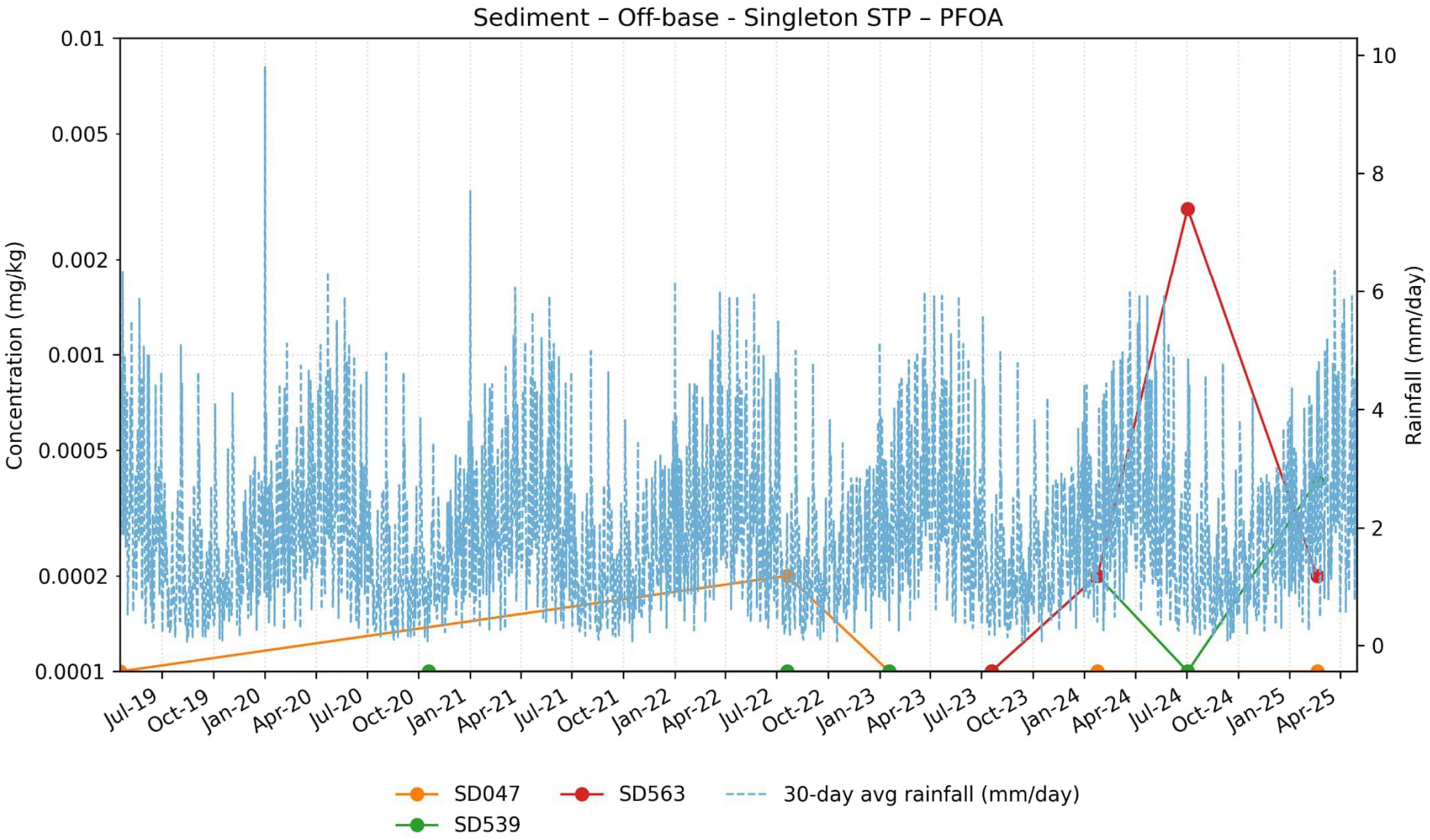
Graph G77 - Temporal Trend



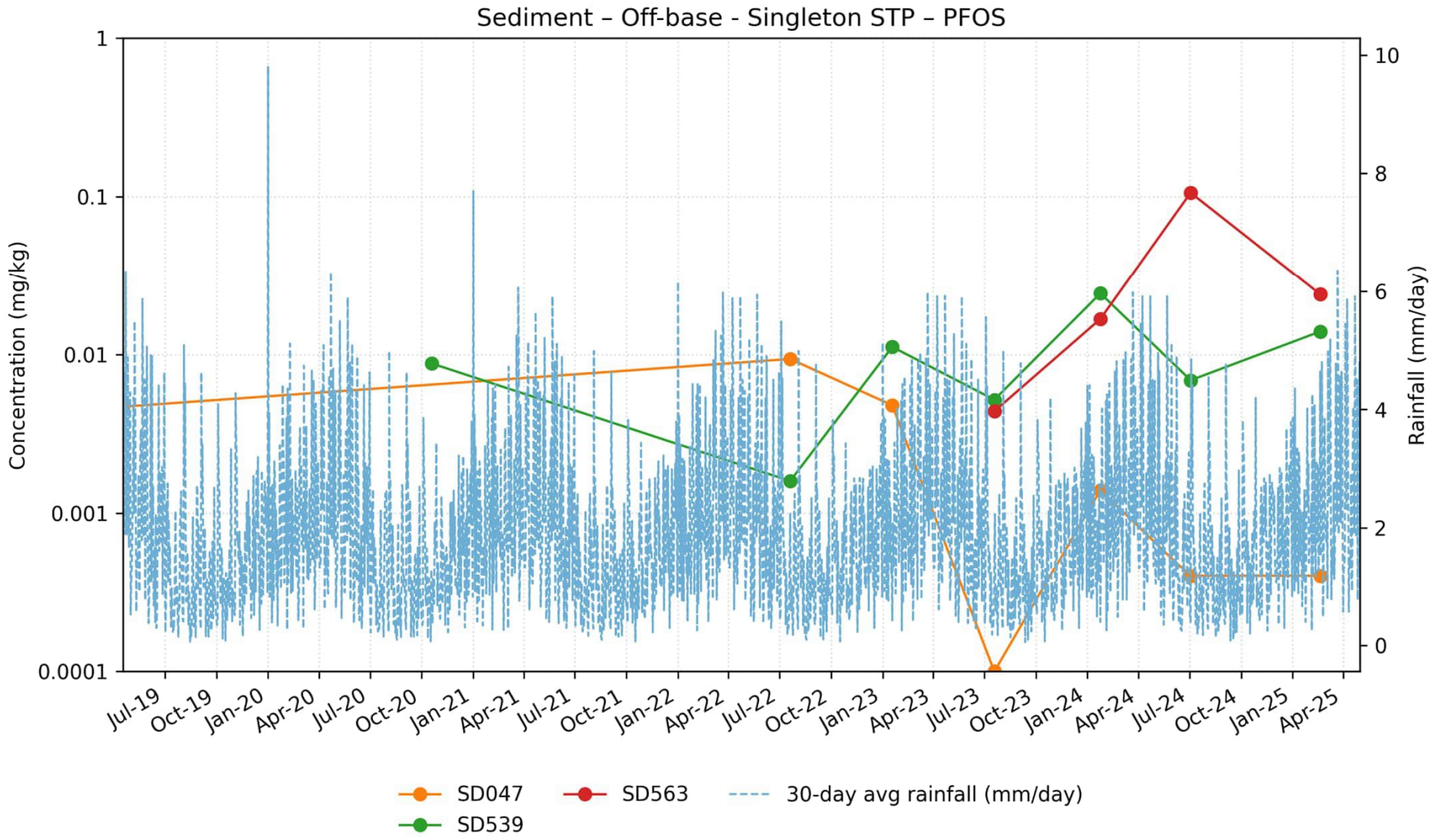
Graph G78 - Temporal Trend



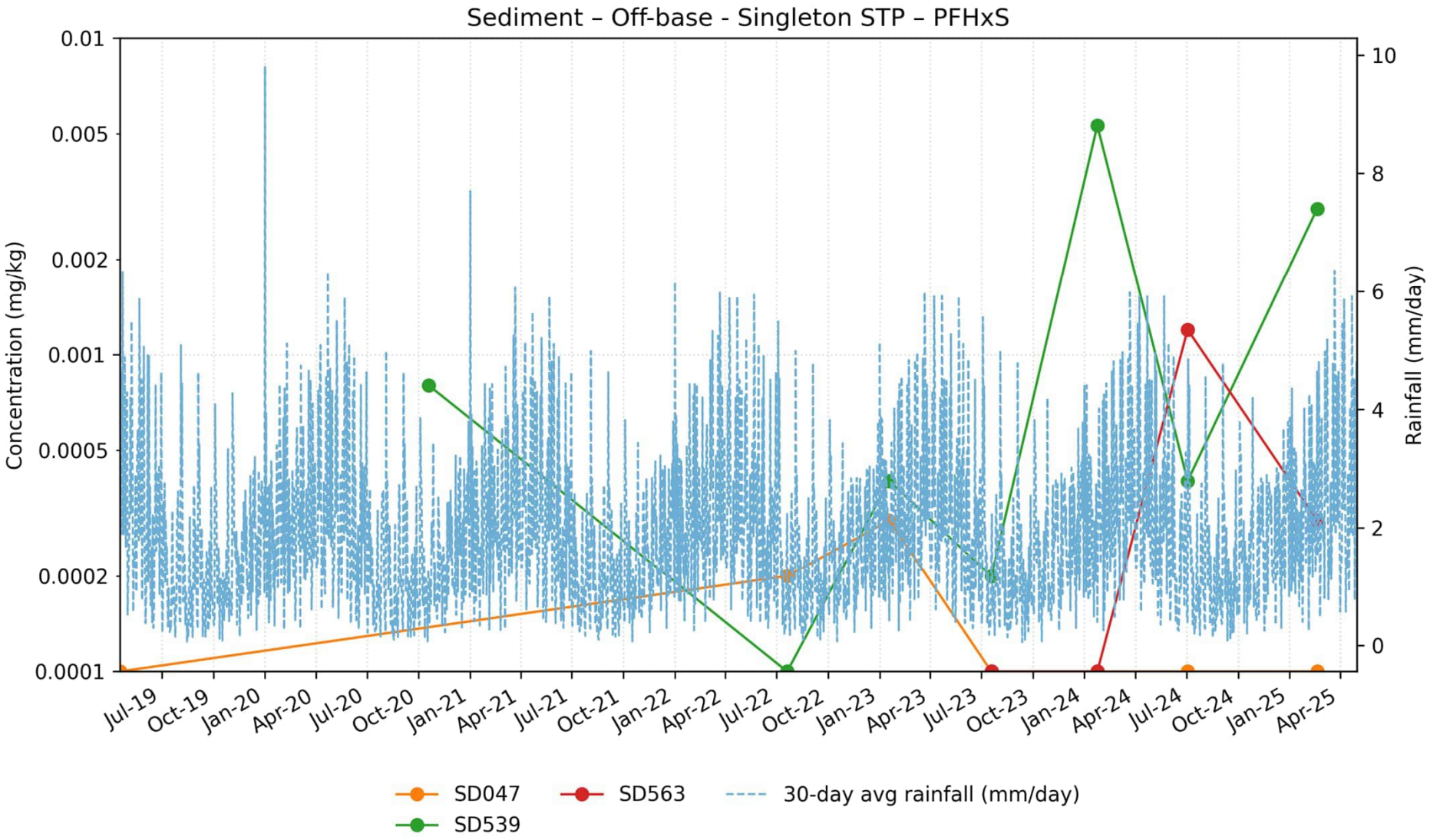
Graph G79 - Temporal Trend



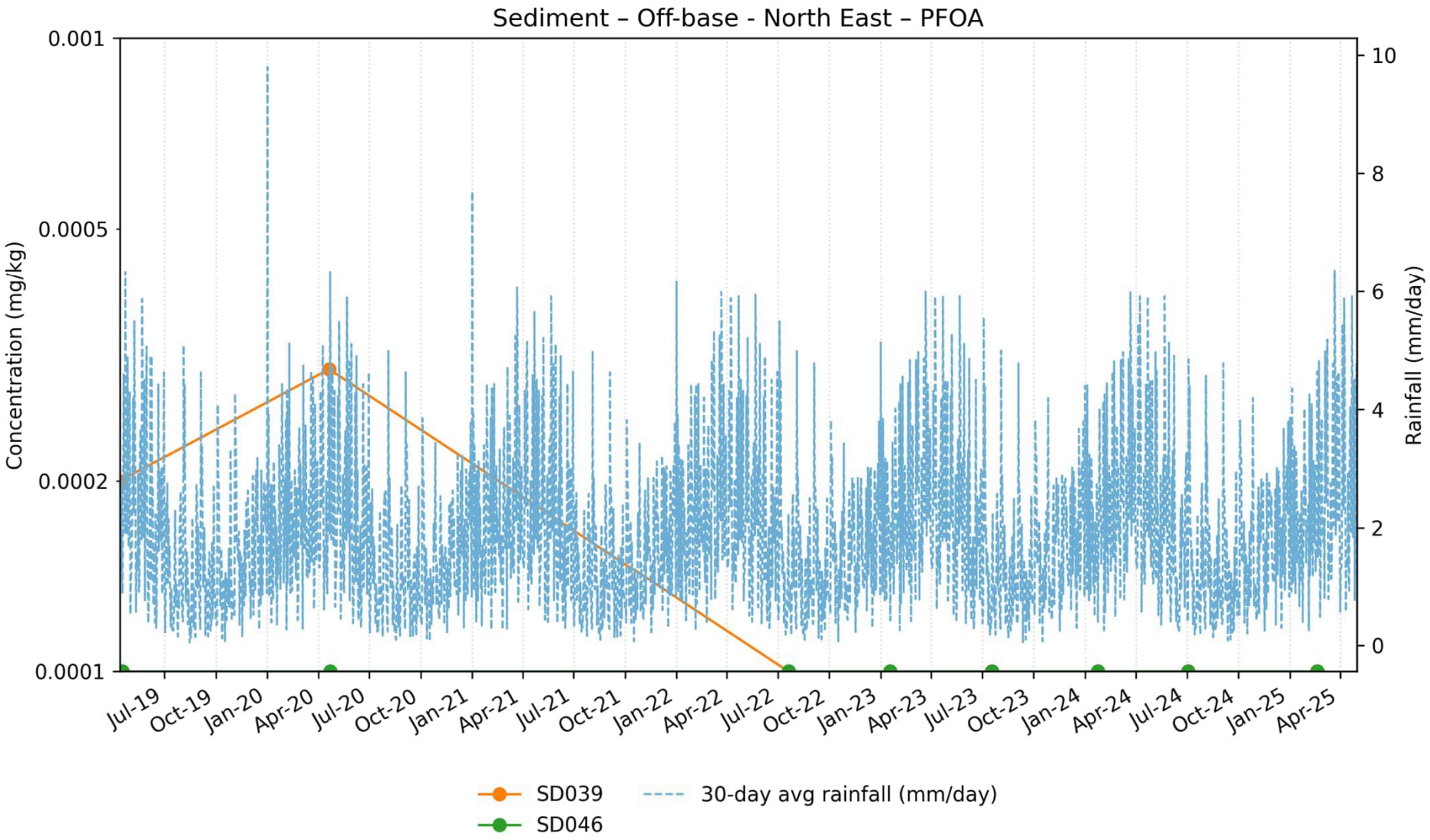
Graph G80 - Temporal Trend



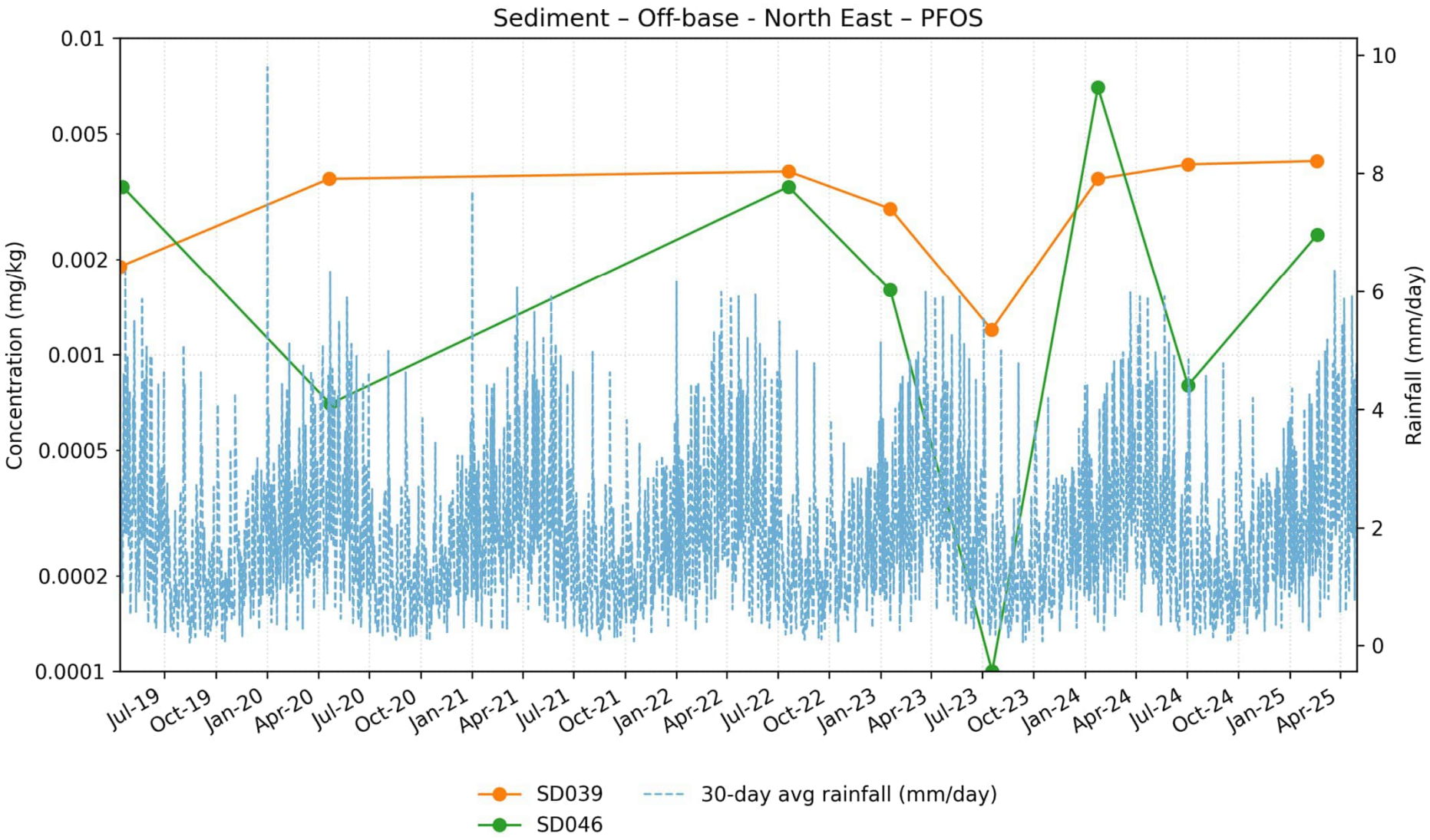
Graph G81 - Temporal Trend



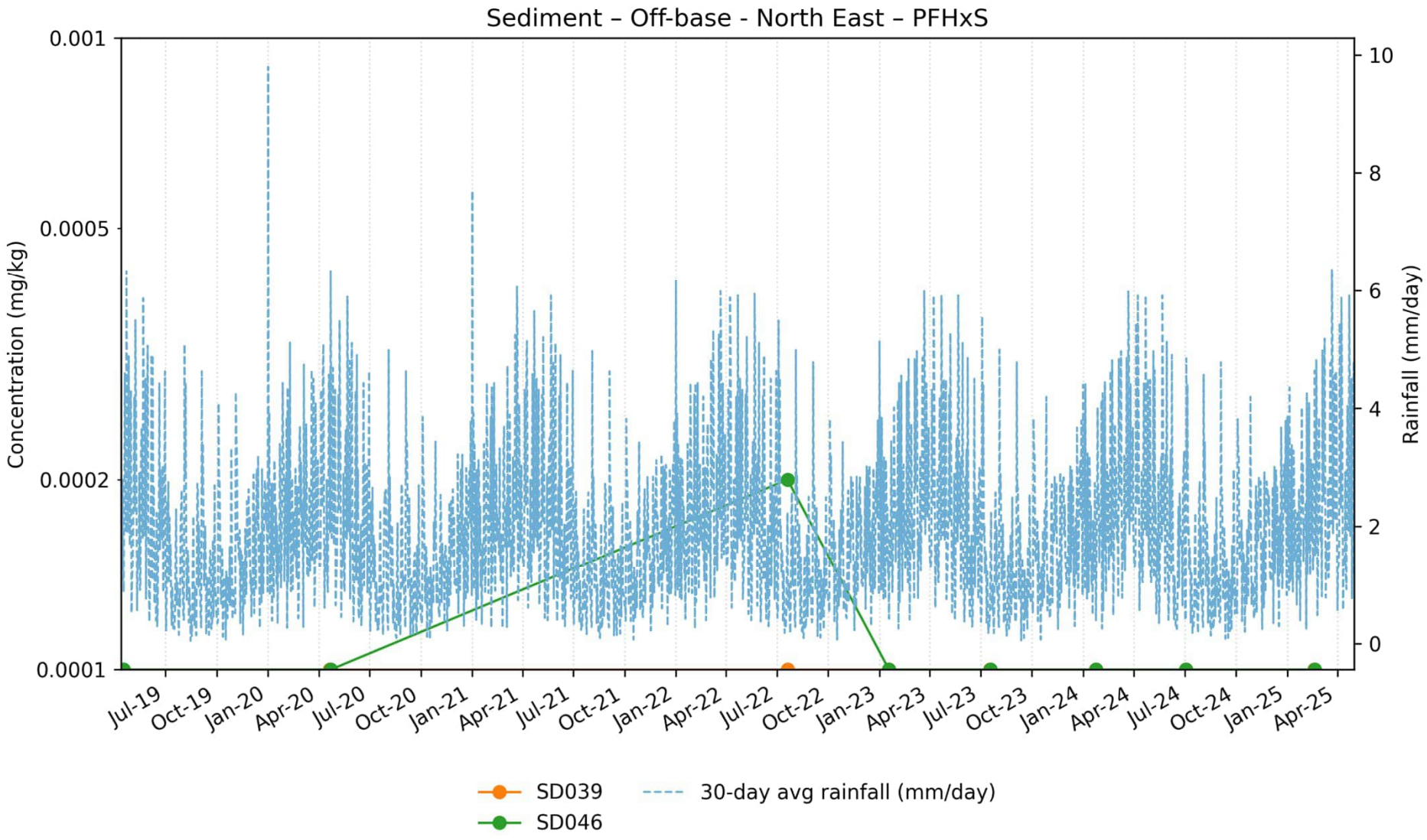
Graph G82 - Temporal Trend



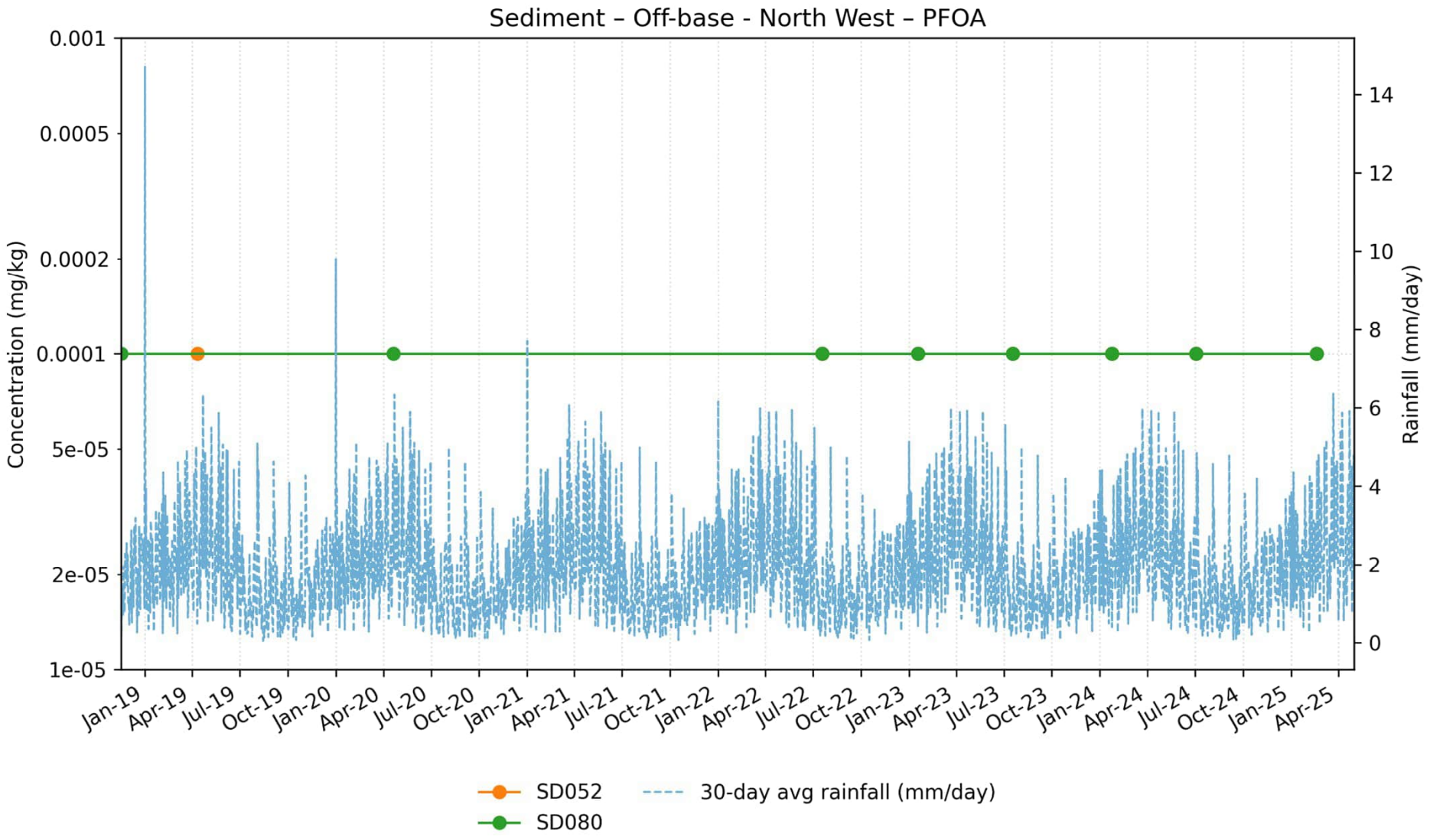
Graph G83 - Temporal Trend



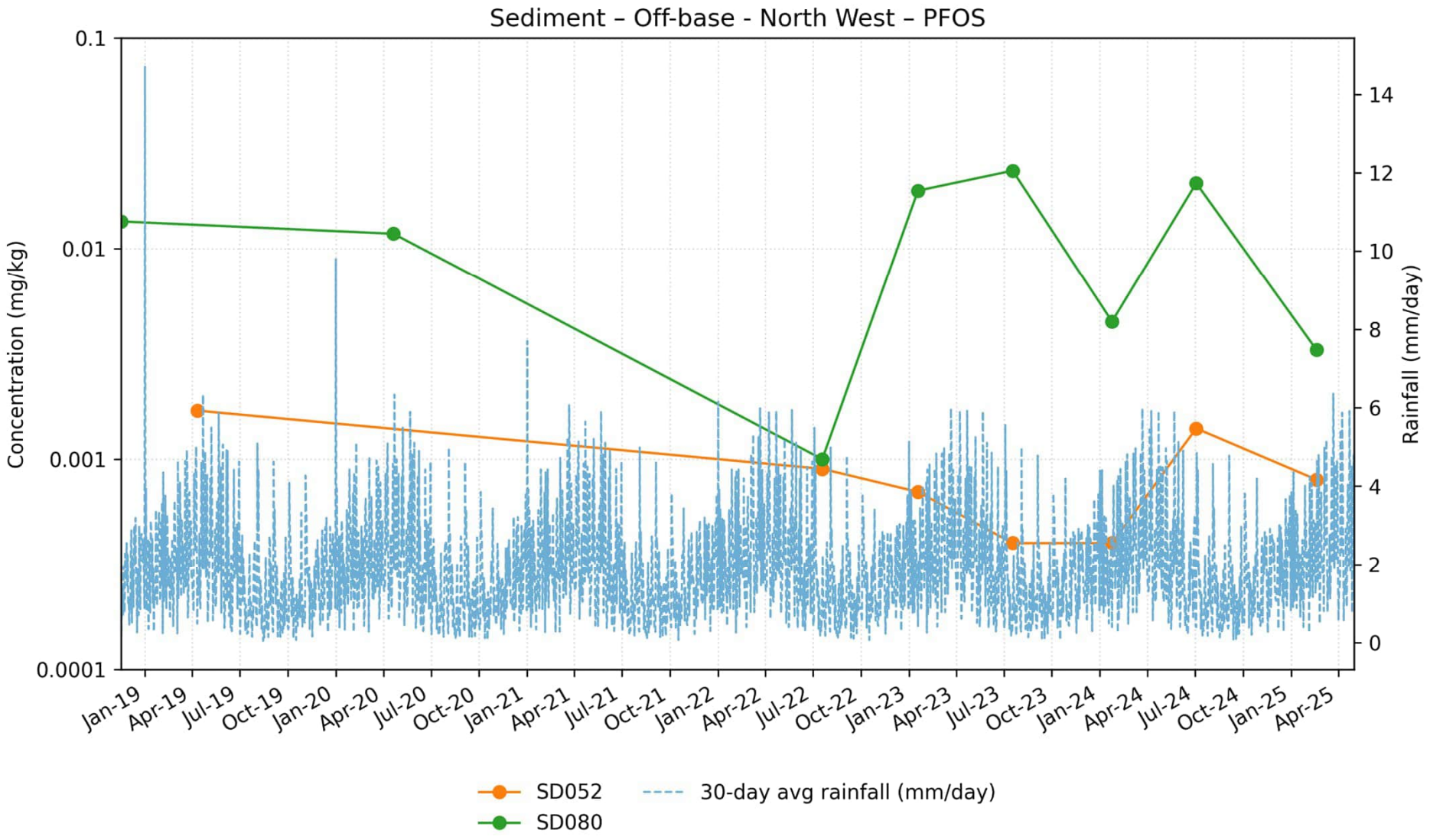
Graph G84 - Temporal Trend



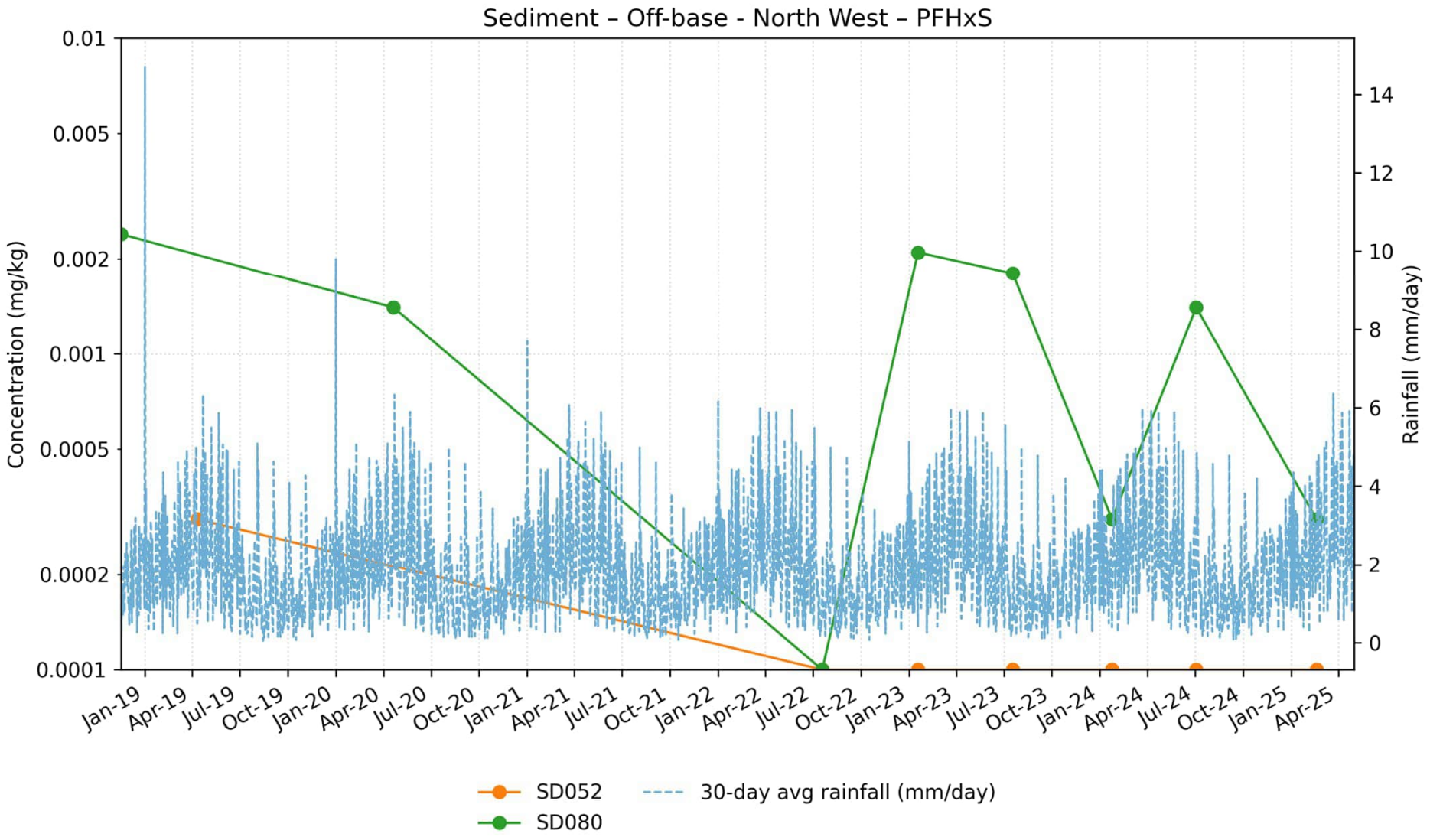
Graph G85 - Temporal Trend



Graph G86 - Temporal Trend



Graph G87 - Temporal Trend



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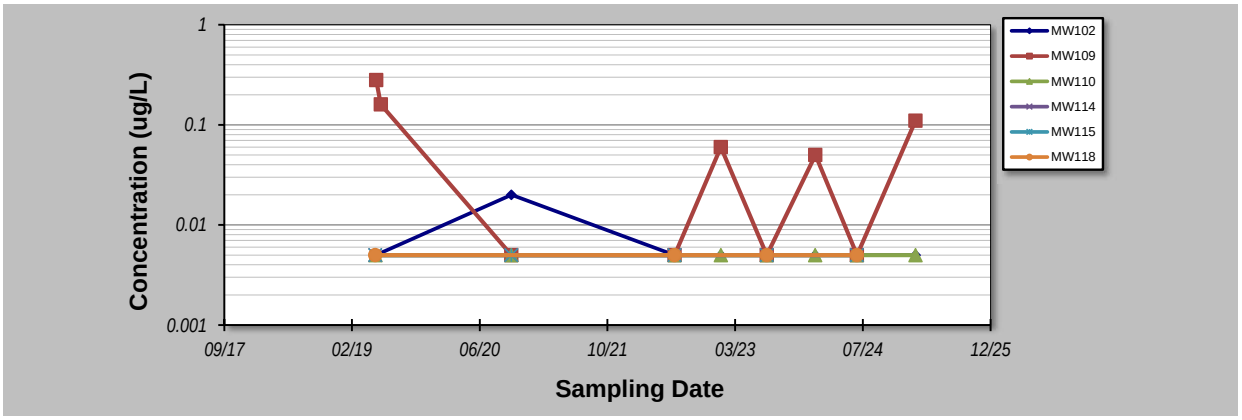
Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site - Northern Boundary	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW102	MW109	MW110	MW114	MW115	MW118

Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	6-May-19	0.005			0.005	0.005	0.005	
2	7-May-19			0.005				
3	8-May-19	0.005						
4	10-May-19		0.28					
5	28-May-19		0.16					
6	20-Oct-20	0.02	0.005	0.005	0.005	0.005		
7	21-Jul-22	0.005	0.005	0.005	0.005	0.005	0.005	
8	18-Jan-23	0.005	0.06	0.005				
9	17-Jul-23	0.005	0.005	0.005	0.005	0.005	0.005	
10	22-Jan-24	0.005		0.005				
11	23-Jan-24		0.05					
12	2-Jul-24	0.005						
13	4-Jul-24		0.005	0.005	0.005	0.005	0.005	
14	18-Feb-25	0.005	0.11	0.005				
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.75	1.25	0.00	0.00	0.00	0.00	
Mann-Kendall Statistic (S):		-4	-8	0	0	0	0	
Confidence Factor:		61.9%	76.2%	45.2%	40.8%	40.8%	37.5%	
Concentration Trend:		n/a	No Trend	n/a	n/a	n/a	n/a	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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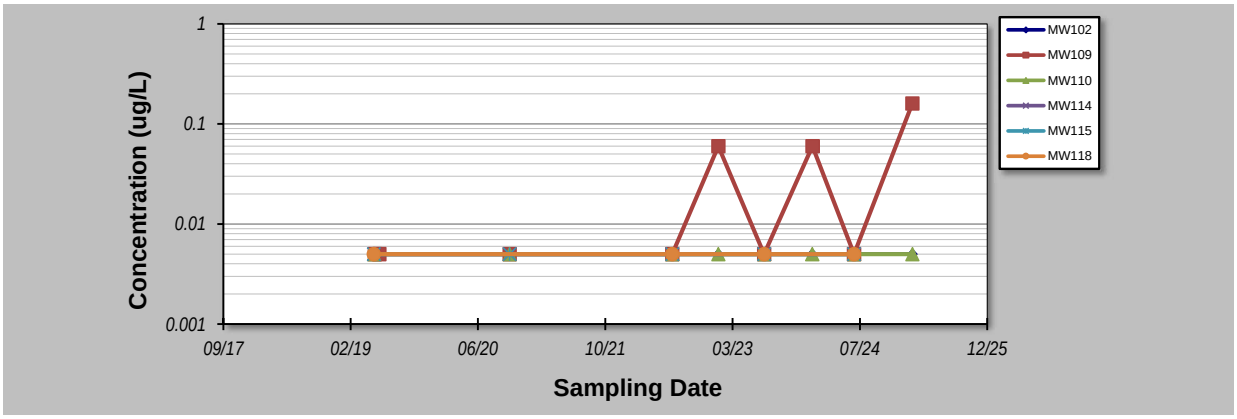
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site - Northern Boundary	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW102	MW109	MW110	MW114	MW115	MW118	
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	6-May-19	0.005			0.005	0.005	0.005	
2	7-May-19			0.005				
3	8-May-19	0.005						
4	10-May-19		0.005					
5	28-May-19		0.005					
6	20-Oct-20	0.005	0.005	0.005	0.005	0.005		
7	21-Jul-22	0.005	0.005	0.005	0.005	0.005	0.005	
8	18-Jan-23	0.005	0.06	0.005				
9	17-Jul-23	0.005	0.005	0.005	0.005	0.005	0.005	
10	22-Jan-24	0.005		0.005				
11	23-Jan-24		0.06					
12	2-Jul-24	0.005						
13	4-Jul-24		0.005	0.005	0.005	0.005	0.005	
14	18-Feb-25	0.005	0.16	0.005				
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	1.53	0.00	0.00	0.00	0.00	
Mann-Kendall Statistic (S):		0	14	0	0	0	0	
Confidence Factor:		46.0%	91.0%	45.2%	40.8%	40.8%	37.5%	
Concentration Trend:		n/a	n/a	n/a	n/a	n/a	n/a	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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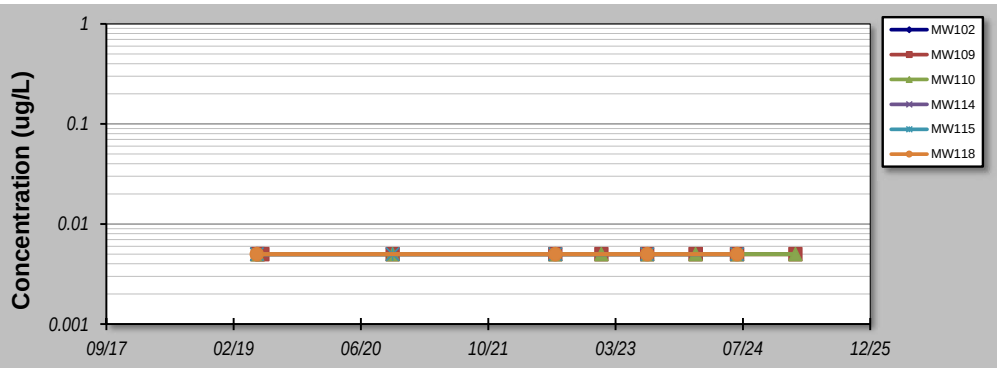
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site - Northern Boundary	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW102	MW109	MW110	MW114	MW115	MW118	
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	6-May-19	0.005			0.005	0.005	0.005	
2	7-May-19			0.005				
3	8-May-19	0.005						
4	10-May-19		0.005					
5	28-May-19		0.005					
6	20-Oct-20	0.005	0.005	0.005	0.005	0.005		
7	21-Jul-22	0.005	0.005	0.005	0.005	0.005	0.005	
8	18-Jan-23	0.005	0.005	0.005				
9	17-Jul-23	0.005	0.005	0.005	0.005	0.005	0.005	
10	23-Jan-24	0.005	0.005	0.005				
11	2-Jul-24	0.005						
12	4-Jul-24		0.005	0.005	0.005	0.005	0.005	
13	18-Feb-25	0.005	0.005	0.005				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	0.00	0.00	0.00	0.00	0.00	
Mann-Kendall Statistic (S):		0	0	0	0	0	0	
Confidence Factor:		46.0%	46.0%	45.2%	40.8%	40.8%	37.5%	
Concentration Trend:		n/a	n/a	n/a	n/a	n/a	n/a	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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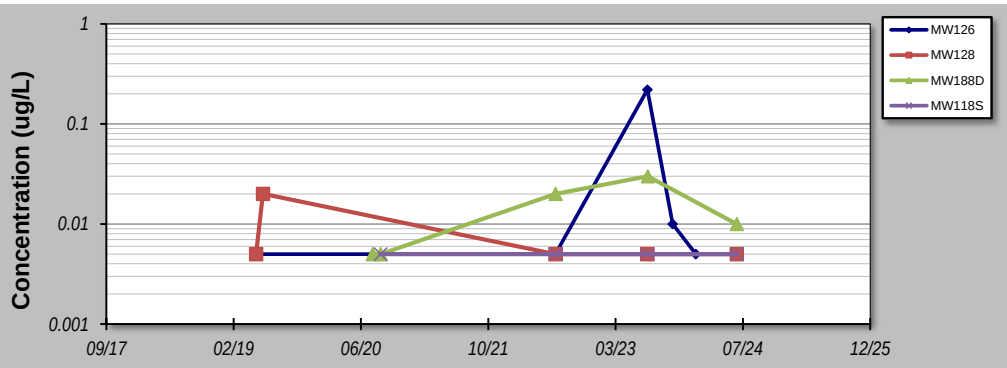
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - Northern Boundary	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW126	MW128	MW188D	MW118S			
Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	3-May-19	0.005	0.005					
2	30-May-19		0.02					
3	3-Aug-20			0.005				
4	3-Sep-20			0.005	0.005			
5	22-Jul-22	0.005	0.005	0.02	0.005			
6	18-Jul-23	0.22	0.005					
7	19-Jul-23			0.03	0.005			
8	25-Oct-23	0.01						
9	24-Jan-24	0.005						
10	3-Jul-24	0.005	0.005	0.01	0.005			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.10	0.84	0.77	0.00			
Mann-Kendall Statistic (S):		-1	-2	5	0			
Confidence Factor:		50.0%	59.2%	82.1%	37.5%			
Concentration Trend:		n/a	n/a	n/a	n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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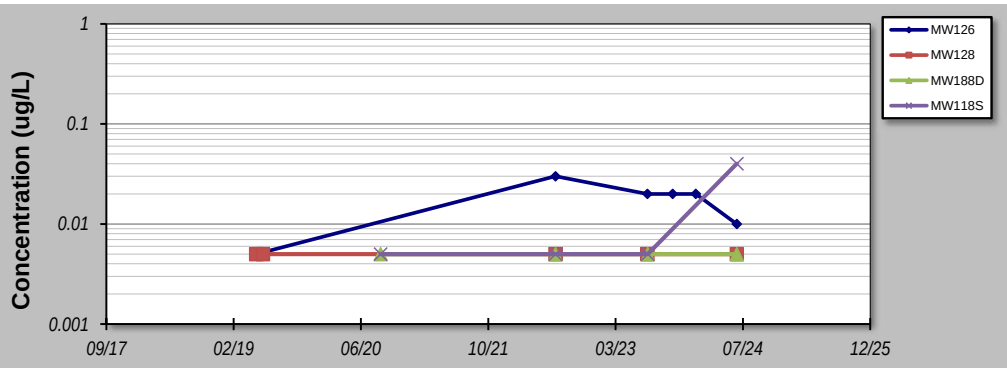
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - Northern Boundary	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW126	MW128	MW188D	MW118S			
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	3-May-19	0.005	0.005					
2	30-May-19		0.005					
3	3-Aug-20							
4	3-Sep-20			0.005	0.005			
5	22-Jul-22	0.03	0.005	0.005	0.005			
6	18-Jul-23	0.02	0.005					
7	19-Jul-23			0.005	0.005			
8	25-Oct-23	0.02						
9	24-Jan-24	0.02						
10	3-Jul-24	0.01	0.005	0.005	0.04			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.50	0.00	0.00	1.27			
Mann-Kendall Statistic (S):		-2	0	0	3			
Confidence Factor:		57.0%	40.8%	37.5%	72.9%			
Concentration Trend:		Stable	n/a	n/a	n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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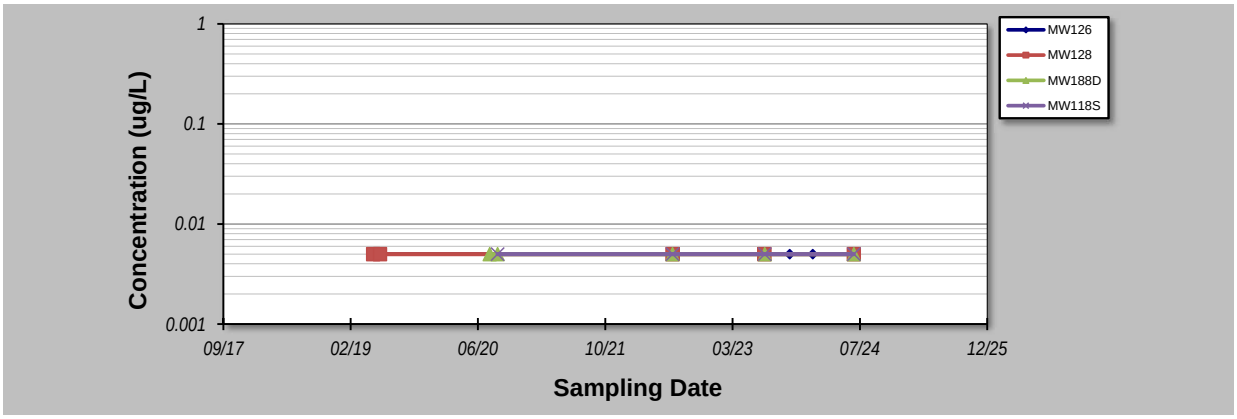
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - Northern Boundary	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW126	MW128	MW188D	MW118S			
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	3-May-19	0.005	0.005					
2	30-May-19		0.005					
3	3-Aug-20			0.005				
4	3-Sep-20			0.005	0.005			
5	22-Jul-22	0.005	0.005	0.005	0.005			
6	18-Jul-23	0.005	0.005					
7	19-Jul-23			0.005	0.005			
8	25-Oct-23	0.005						
9	24-Jan-24	0.005						
10	3-Jul-24	0.005	0.005	0.005	0.005			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	0.00	0.00	0.00			
Mann-Kendall Statistic (S):		0	0	0	0			
Confidence Factor:		39.3%	40.8%	40.8%	37.5%			
Concentration Trend:		n/a	n/a	n/a	n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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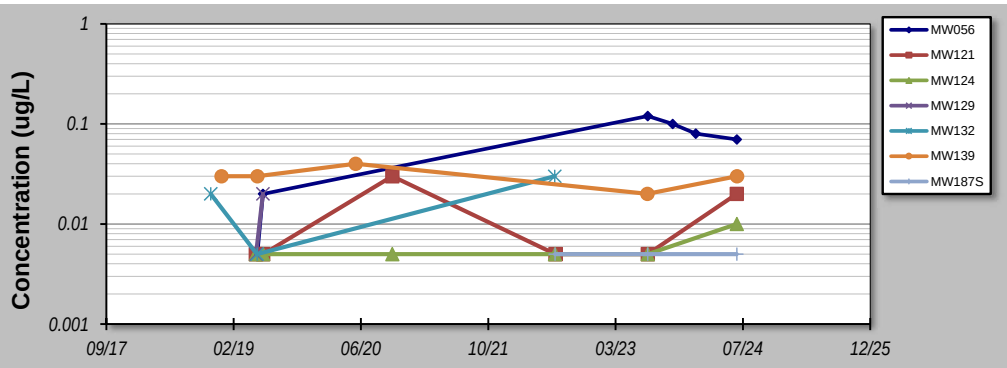
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Shallow	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW056	MW121	MW124	MW129	MW132	MW139	MW187S
Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	6-Nov-18					0.02		
2	18-Dec-18						0.03	
3	2-May-19		0.005	0.005				
4	3-May-19				0.005			
5	7-May-19					0.005		
6	8-May-19	0.005					0.03	
7	30-May-19	0.02			0.02			
8	31-May-19		0.005	0.005				
9	28-May-20						0.04	
10	19-Oct-20		0.03	0.005				
11	19-Jul-22					0.03		
12	20-Jul-22			0.005				0.005
13	22-Jul-22		0.005					
14	18-Jul-23						0.02	
15	19-Jul-23	0.12	0.005	0.005				0.005
16	25-Oct-23	0.1						
17	24-Jan-24	0.08						
18	3-Jul-24	0.07	0.02	0.01				0.005
19	4-Jul-24						0.03	
20								
Coefficient of Variation:		0.68	0.93	0.35	0.85	0.69	0.24	0.00
Mann-Kendall Statistic (S):		3	3	5	1	1	-1	0
Confidence Factor:		64.0%	64.0%	76.5%			50.0%	
Concentration Trend:		No Trend	n/a	n/a			Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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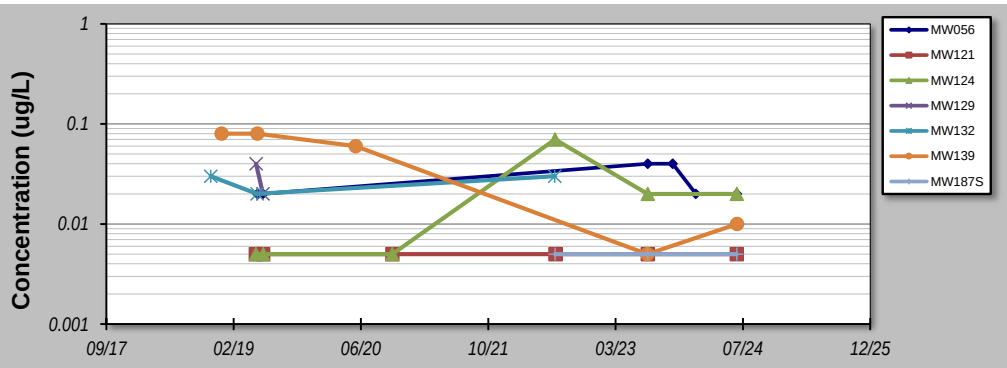
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Shallow	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW056	MW121	MW124	MW129	MW132	MW139	MW187S
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	6-Nov-18					0.03		
2	18-Dec-18						0.08	
3	2-May-19		0.005	0.005				
4	3-May-19				0.04			
5	7-May-19					0.02		
6	8-May-19	0.02					0.08	
7	30-May-19	0.02			0.02			
8	31-May-19		0.005	0.005				
9	28-May-20						0.06	
10	19-Oct-20		0.005	0.005				
11	19-Jul-22					0.03		
12	20-Jul-22			0.07				0.005
13	22-Jul-22		0.005					
14	18-Jul-23						0.005	
15	19-Jul-23	0.04	0.005	0.02				0.005
16	25-Oct-23	0.04						
17	24-Jan-24	0.02						
18	3-Jul-24	0.02	0.005	0.02				0.005
19	4-Jul-24						0.01	
20								
Coefficient of Variation:		0.39	0.00	1.21	0.47	0.22	0.79	0.00
Mann-Kendall Statistic (S):		0	0	7	-1	0	-7	0
Confidence Factor:		39.3%	39.3%	86.4%			92.1%	
Concentration Trend:		Stable	n/a	n/a			Prob. Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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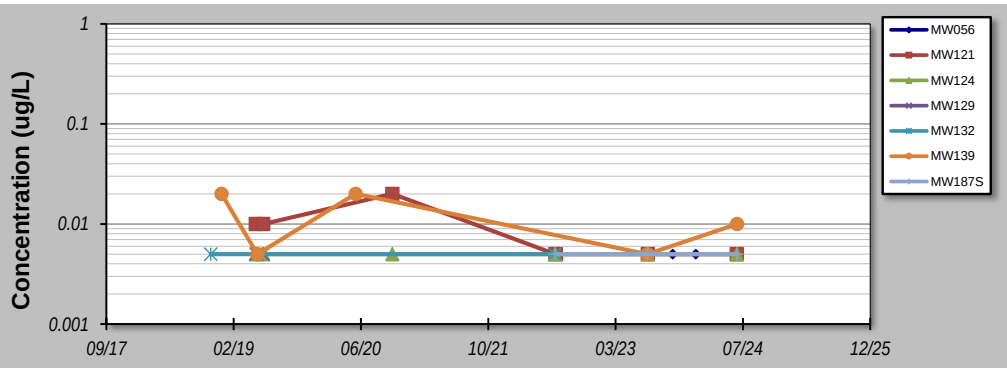
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Shallow	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW056	MW121	MW124	MW129	MW132	MW139	MW187S
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	6-Nov-18					0.005		
2	18-Dec-18						0.02	
3	2-May-19		0.01	0.005				
4	3-May-19				0.005			
5	7-May-19					0.005		
6	8-May-19	0.005					0.005	
7	30-May-19	0.005			0.005			
8	31-May-19		0.01	0.005				
9	28-May-20						0.02	
10	19-Oct-20		0.02	0.005				
11	19-Jul-22					0.005		
12	20-Jul-22			0.005				0.005
13	22-Jul-22		0.005					
14	18-Jul-23						0.005	
15	19-Jul-23	0.005	0.005	0.005				0.005
16	25-Oct-23	0.005						
17	24-Jan-24	0.005						
18	3-Jul-24	0.005	0.005	0.005				0.005
19	4-Jul-24						0.01	
20								
Coefficient of Variation:		0.00	0.64	0.00	0.00	0.00	0.63	0.00
Mann-Kendall Statistic (S):		0	-7	0	0	0	-2	0
Confidence Factor:		39.3%	86.4%	39.3%			59.2%	
Concentration Trend:		n/a	n/a	n/a			n/a	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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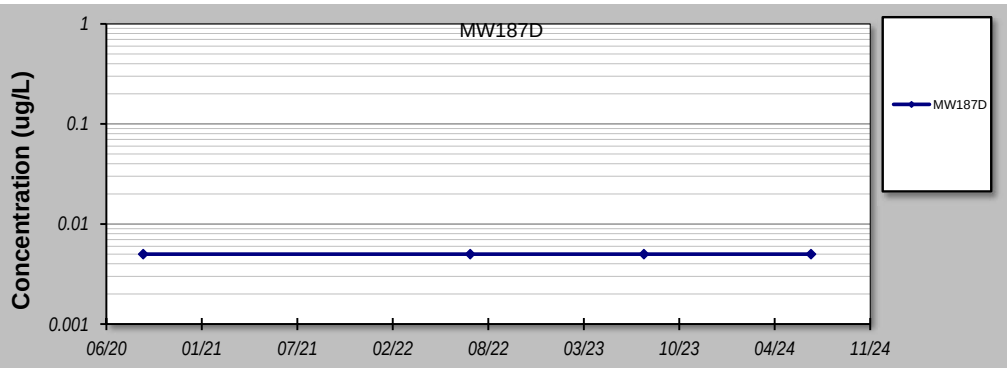
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Deep	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW187D		

Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)
1	3-Sep-20	0.005
2	20-Jul-22	0.005
3	19-Jul-23	0.005
4	3-Jul-24	0.005
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.00
Mann-Kendall Statistic (S):		0
Confidence Factor:		37.5%
Concentration Trend:		n/a



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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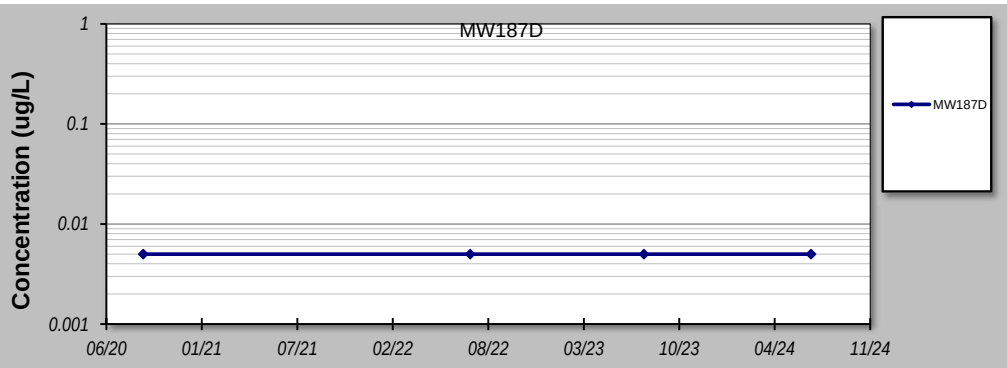
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Deep	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW187D		

Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)
1	3-Sep-20	0.005
2	20-Jul-22	0.005
3	19-Jul-23	0.005
4	3-Jul-24	0.005
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.00
Mann-Kendall Statistic (S):		0
Confidence Factor:		37.5%
Concentration Trend:		n/a



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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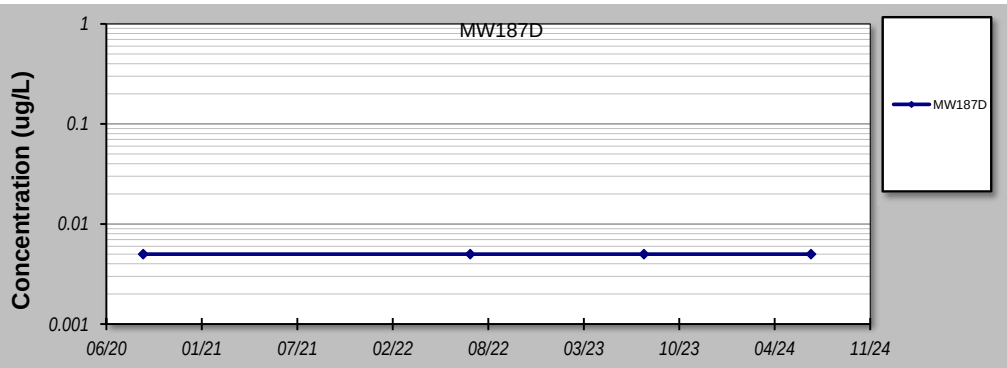
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	Off-Site - North - Deep	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW187D		

Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)
1	3-Sep-20	0.005
2	20-Jul-22	0.005
3	19-Jul-23	0.005
4	3-Jul-24	0.005
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.00
Mann-Kendall Statistic (S):		0
Confidence Factor:		37.5%
Concentration Trend:		n/a



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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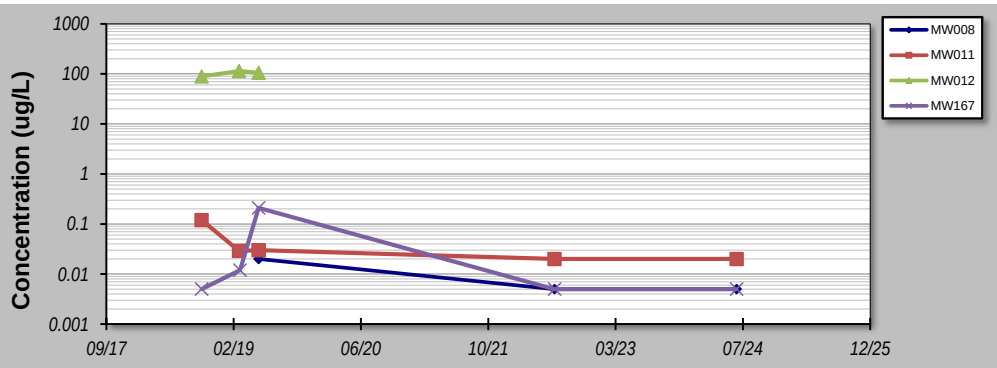
Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 28-Apr-25
Facility Name: On-Site Former Cantonment FS and FTP
Conducted By: BY/JR

Job ID: 60739111
Constituent: PFOS
Concentration Units: ug/L

Sampling Point ID:	MW008	MW011	MW012	MW167			
Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	1-Oct-18		0.12	89.4	0.005			
2	25-Feb-19		0.029	114				
3	1-Mar-19				0.012			
4	13-May-19	0.02	0.03	105	0.21			
5	18-Jul-22	0.005	0.02		0.005			
6	2-Jul-24	0.005	0.02		0.005			
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.87	0.98	0.12	1.92			
Mann-Kendall Statistic (S):		-2	-7	1	-1			
Confidence Factor:			92.1%		50.0%			
Concentration Trend:			Prob. Decreasing		n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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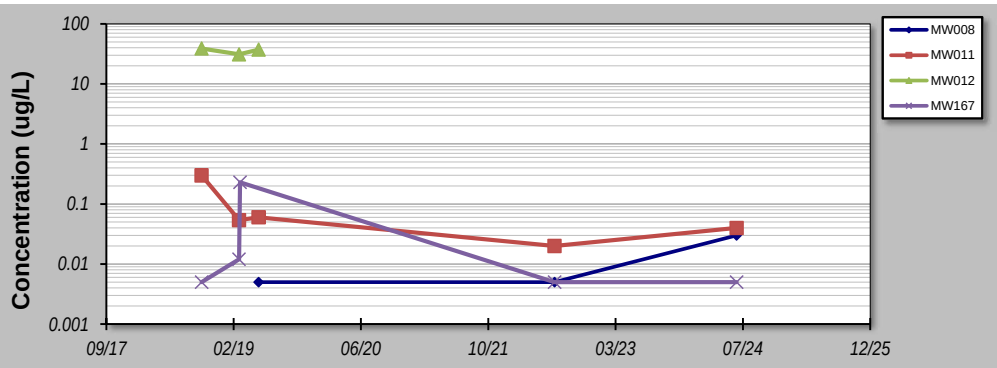
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site Former Cantonment FS and FTP	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW008	MW011	MW012	MW167			
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	1-Oct-18		0.3	38.8	0.005			
2	25-Feb-19		0.054	31.1	0.012			
3	1-Mar-19				0.23			
4	13-May-19	0.005	0.06	37.2				
5	18-Jul-22	0.005	0.02		0.005			
6	2-Jul-24	0.03	0.04		0.005			
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20								
Coefficient of Variation:		1.08	1.22	0.11	1.94			
Mann-Kendall Statistic (S):		2	-6	-1	-1			
Confidence Factor:			88.3%		50.0%			
Concentration Trend:			No Trend		n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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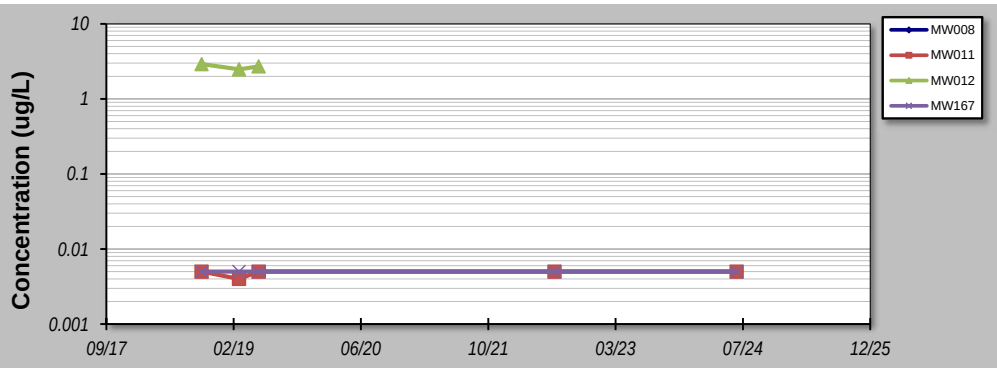
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site Former Cantonment FS and FTP	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW008	MW011	MW012	MW167			
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	1-Oct-18		0.005	2.91	0.005			
2	25-Feb-19		0.004	2.48	0.005			
3	13-May-19	0.005	0.005	2.71	0.005			
4	18-Jul-22	0.005	0.005		0.005			
5	2-Jul-24	0.005	0.005		0.005			
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20								
Coefficient of Variation:		0.00	0.09	0.08	0.00			
Mann-Kendall Statistic (S):		0	2	-1	0			
Confidence Factor:			59.2%		40.8%			
Concentration Trend:			n/a		n/a			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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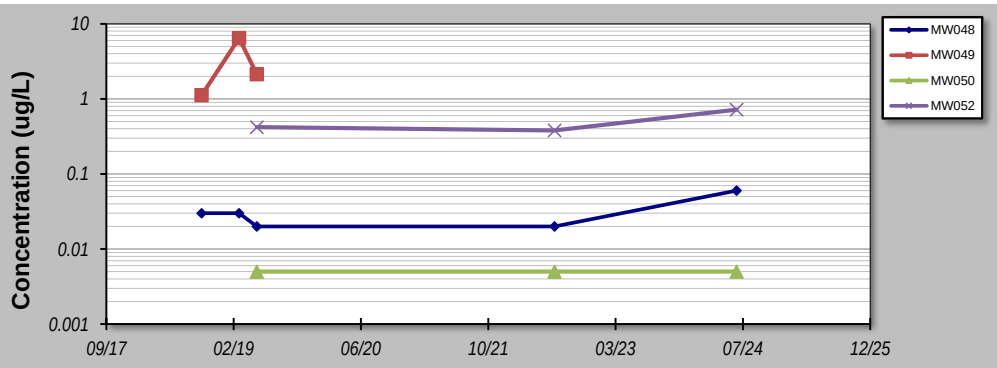
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site DNSDC	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW048	MW049	MW050	MW052			
Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	1-Oct-18	0.03	1.12					
2	25-Feb-19	0.03	6.45					
3	6-May-19	0.02	2.13	0.005	0.42			
4	18-Jul-22	0.02		0.005	0.38			
5	2-Jul-24	0.06		0.005	0.72			
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Coefficient of Variation:		0.51	0.88	0.00	0.37			
Mann-Kendall Statistic (S):		0	1	0	1			
Confidence Factor:		40.8%						
Concentration Trend:		Stable						



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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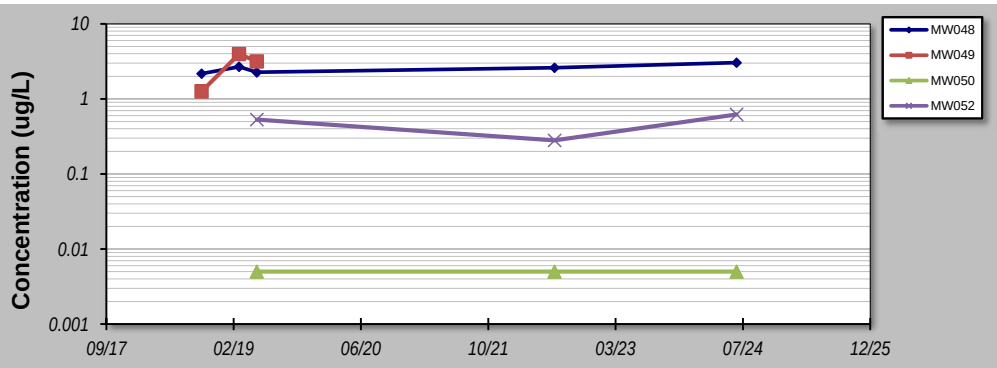
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site DNSDC	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW048	MW049	MW050	MW052			
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	1-Oct-18	2.17	1.26					
2	25-Feb-19	2.68	3.97					
3	6-May-19	2.26	3.16	0.005	0.53			
4	18-Jul-22	2.6		0.005	0.28			
5	2-Jul-24	3.04		0.005	0.62			
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20								
Coefficient of Variation:		0.14	0.50	0.00	0.37			
Mann-Kendall Statistic (S):		6	1	0	1			
Confidence Factor:		88.3%						
Concentration Trend:		No Trend						



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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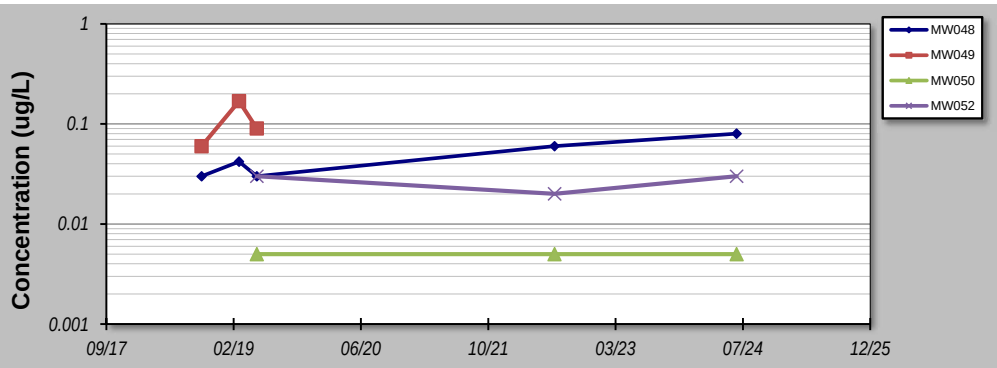
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-Site DNSDC	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW048	MW049	MW050	MW052			
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	1-Oct-18	0.03	0.06					
2	25-Feb-19	0.042	0.169					
3	6-May-19	0.03	0.09	0.005	0.03			
4	18-Jul-22	0.06		0.005	0.02			
5	2-Jul-24	0.08		0.005	0.03			
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20								
Coefficient of Variation:		0.44	0.53	0.00	0.22			
Mann-Kendall Statistic (S):		7	1	0	0			
Confidence Factor:		92.1%						
Concentration Trend:		Prob. Increasing						



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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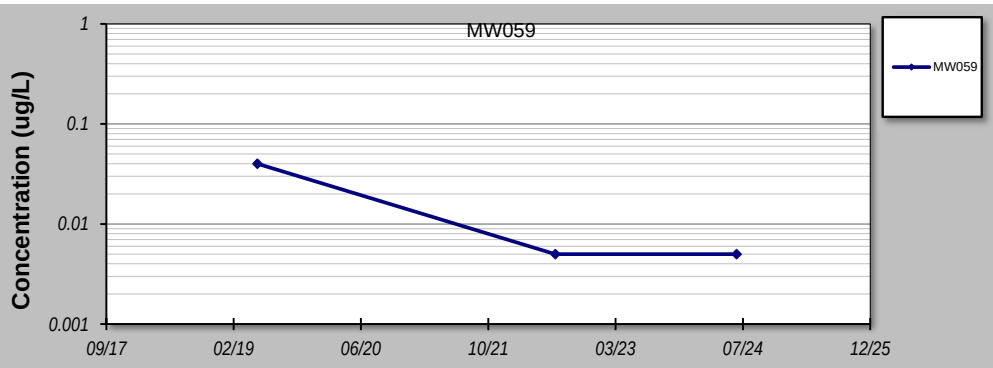
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-base - HLG (Shallow)	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW059		

Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)
1	8-May-19	0.04
2	21-Jul-22	0.005
3	2-Jul-24	0.005
4		
5		
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20		
Coefficient of Variation:	1.21	
Mann-Kendall Statistic (S):	-2	
Confidence Factor:		
Concentration Trend:		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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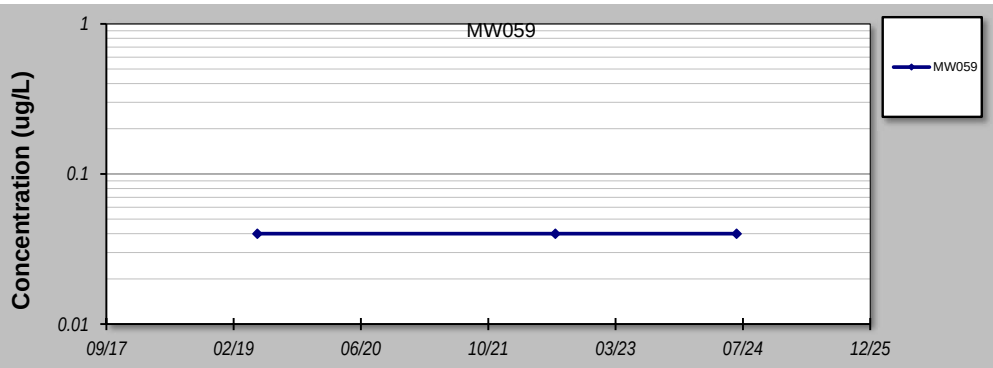
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-base - HLG (Shallow)	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW059		

Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)
1	8-May-19	0.04
2	21-Jul-22	0.04
3	2-Jul-24	0.04
4		
5		
6		
7		
8		
9		
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12		
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.00
Mann-Kendall Statistic (S):		0
Confidence Factor:		
Concentration Trend:		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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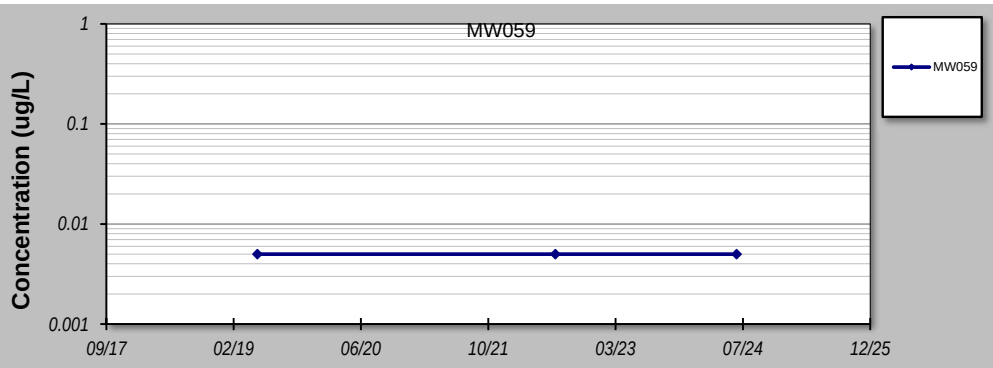
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On-base - HLG (Shallow)	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L
Sampling Point ID:	MW059		

Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)
1	8-May-19	0.005
2	21-Jul-22	0.005
3	2-Jul-24	0.005
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.00
Mann-Kendall Statistic (S):		0
Confidence Factor:		
Concentration Trend:		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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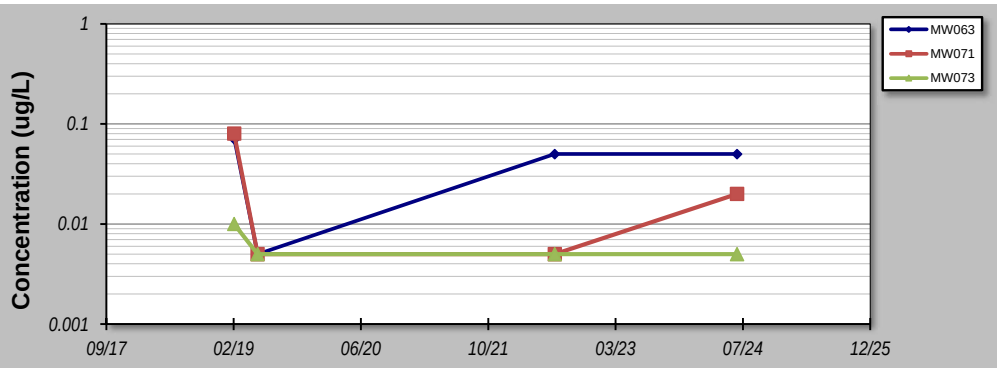
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On Base - Dochra Airfield	Constituent:	PFOS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW063	MW071	MW073				
Sampling Event	Sampling Date	PFOS CONCENTRATION (ug/L)						
1	6-Feb-19		0.08	0.01				
2	7-Feb-19	0.07						
3	9-May-19	0.005	0.005	0.005				
4	19-Jul-22	0.05	0.005	0.005				
5	4-Jul-24	0.05	0.02	0.005				
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20								
Coefficient of Variation:		0.63	1.30	0.40				
Mann-Kendall Statistic (S):		-1	-1	-3				
Confidence Factor:		50.0%	50.0%	72.9%				
Concentration Trend:		n/a	n/a	n/a				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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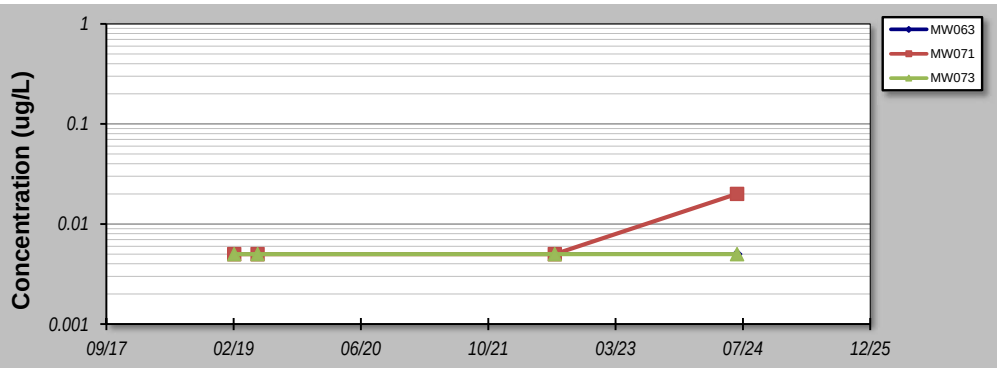
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Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On Base - Dochra Airfield	Constituent:	PFHxS
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW063	MW071	MW073				
Sampling Event	Sampling Date	PFHXS CONCENTRATION (ug/L)						
1	6-Feb-19		0.005	0.005				
2	7-Feb-19	0.005						
3	9-May-19	0.005	0.005	0.005				
4	19-Jul-22	0.005	0.005	0.005				
5	4-Jul-24	0.005	0.02	0.005				
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	0.86	0.00				
Mann-Kendall Statistic (S):		0	3	0				
Confidence Factor:		37.5%	72.9%	37.5%				
Concentration Trend:		n/a	n/a	n/a				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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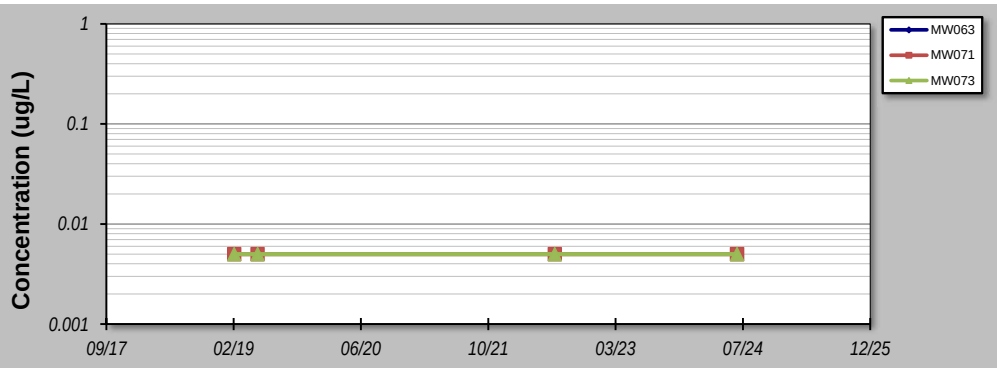
AECOM

Appendix C - Mann Kendall Assessment

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	60739111
Facility Name:	On Base - Dochra Airfield	Constituent:	PFOA
Conducted By:	BY/JR	Concentration Units:	ug/L

Sampling Point ID:	MW063	MW071	MW073				
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	6-Feb-19		0.005	0.005				
2	7-Feb-19	0.005						
3	9-May-19	0.005	0.005	0.005				
4	19-Jul-22	0.005	0.005	0.005				
5	4-Jul-24	0.005	0.005	0.005				
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	0.00	0.00				
Mann-Kendall Statistic (S):		0	0	0				
Confidence Factor:		37.5%	37.5%	37.5%				
Concentration Trend:		n/a	n/a	n/a				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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Appendix D

Data Deviations

Table D1 - Historical Groundwater Analytical Results and Deviations

						PFAS Results and Deviations					
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFHxS	PFHxS Deviations
						µg/L		µg/L			
LOR						0.002		0.002		0.002	
Australian Drinking Water Guidelines 2025						0.2		0.008		0.03	
PFAS NEMP 2025 Freshwater 99%						*19*		*0.00023*			
Area (Aquifer)	Location	Date	Field ID	Sample Type	Project ID						
On-base - DNSDC (Shallow)	MW048	03 Oct 2018	0356_CNN0039_GW01_181003	Normal	NSW_0356_PFAS	0.03		*0.03*		2.17	
On-base - DNSDC (Shallow)	MW048	27 Feb 2019	0356_CNN0039_GW01_190227	Normal	NSW_0356_PFAS	0.042		*0.03*		2.68	
On-base - DNSDC (Shallow)	MW048	10 May 2019	0356_CNN0039_GW01_190510	Normal	NSW_0356_PFAS	0.03		*0.02*		2.26	
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_MW048_220721	Normal	NSW_0356_PFASOMP_22	0.05		*0.02*		2.26	
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_QC103_220721	Field_D	NSW_0356_PFASOMP_22	0.05		*0.02*		2.24	
On-base - DNSDC (Shallow)	MW048	21 Jul 2022	0356_QC203_220721	Interlab_D	NSW_0356_PFASOMP_22	0.06		*0.02*		2.6	
On-base - DNSDC (Shallow)	MW048	02 Jul 2024	0356_MW048_240702	Normal	NSW_0356_PFASOMP_24	0.08		*0.06*		3.04	
On-base - DNSDC (Shallow)	MW052	10 May 2019	0356_CNN0039_GW05_190510	Normal	NSW_0356_PFAS	0.03		*0.42*		0.53	
On-base - DNSDC (Shallow)	MW052	21 Jul 2022	0356_MW052_220721	Normal	NSW_0356_PFASOMP_22	0.02		*0.38*		0.28	
On-base - DNSDC (Shallow)	MW052	02 Jul 2024	0356_MW052_240702	Normal	NSW_0356_PFASOMP_24	0.03		*0.72*		0.62	
On-base - DNSDC (Deep)	MW049	03 Oct 2018	0356_CNN0039_GW02_181003	Normal	NSW_0356_PFAS	0.06		*1.12*		1.26	
On-base - DNSDC (Deep)	MW049	27 Feb 2019	0356_CNN0039_GW02_190227	Normal	NSW_0356_PFAS	0.169		*6.45*		3.97	
On-base - DNSDC (Deep)	MW049	10 May 2019	0356_CNN0039_GW02_190510	Normal	NSW_0356_PFAS	0.09		*2.13*		3.16	
On-base - DNSDC (Deep)	MW050	07 May 2019	0356_CNN0039_GW03_190507	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - DNSDC (Deep)	MW050	21 Jul 2022	0356_MW050_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - DNSDC (Deep)	MW050	02 Jul 2024	0356_MW050_240702	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Shallow)	MW073	06 Feb 2019	0356_NSW1164_MW03S_190206	Normal	NSW_0356_PFAS	<0.01		*0.01*		<0.02	
On-base - Dochra Airfield (Shallow)	MW073	09 May 2019	0356_NSW1164_MW03S_190509	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Dochra Airfield (Shallow)	MW073	19 Jul 2022	0356_MW073_220719	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_MW073_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_QC106_240704	Field_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Shallow)	MW073	04 Jul 2024	0356_QC206_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Deep)	MW063	07 Feb 2019	0356_NSW1164_MW01D_190207	Normal	NSW_0356_PFAS	<0.05		*0.07*		<0.05	
On-base - Dochra Airfield (Deep)	MW063	09 May 2019	0356_NSW1164_MW01D_190509	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Dochra Airfield (Deep)	MW063	19 Jul 2022	0356_MW063_220719	Normal	NSW_0356_PFASOMP_22	<0.01		*0.05*		<0.01	
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_MW063_240704	Normal	NSW_0356_PFASOMP_24	<0.01		*0.05*		<0.01	
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_QC105_240704	Field_D	NSW_0356_PFASOMP_24	<0.01		*0.05*		<0.01	
On-base - Dochra Airfield (Deep)	MW063	04 Jul 2024	0356_QC205_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.01		*0.04*		<0.01	
On-base - Dochra Airfield (Deep)	MW071	06 Feb 2019	0356_NSW1164_MW03D_190206	Normal	NSW_0356_PFAS	<0.05		*0.08*		<0.05	
On-base - Dochra Airfield (Deep)	MW071	09 May 2019	0356_NSW1164_MW03D_190509	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Dochra Airfield (Deep)	MW071	19 Jul 2022	0356_MW071_220719	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Dochra Airfield (Deep)	MW071	04 Jul 2024	0356_MW071_240704	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.02	
On-base - FCFS and FTP (Deep)	MW008	15 May 2019	0356_CNN0018_GW08_190515	Normal	NSW_0356_PFAS	<0.01		*0.02*		<0.02	
On-base - FCFS and FTP (Deep)	MW008	21 Jul 2022	0356_MW008_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - FCFS and FTP (Deep)	MW008	02 Jul 2024	0356_MW008_240702	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		0.03	
On-base - FCFS and FTP (Deep)	MW011	05 Oct 2018	CNN0018_GW02_181005	Normal	NSW_0356_PFAS	<0.05		*0.12*		0.3	
On-base - FCFS and FTP (Deep)	MW011	28 Feb 2019	0356_CNN0018_GW02_190228	Normal	NSW_0356_PFAS	0.004		*0.029*		0.054	
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_CNN0018_GW02_190515	Normal	NSW_0356_PFAS	<0.01		*0.03*		0.06	
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_QC145_GW_190515	Field_D	NSW_0356_PFAS	<0.01		*0.03*		0.06	
On-base - FCFS and FTP (Deep)	MW011	15 May 2019	0356_QC245_GW_190515	Field_D	NSW_0356_PFAS	<0.01		*0.03*		0.06	
On-base - FCFS and FTP (Deep)	MW011	21 Jul 2022	0356_MW011_220721	Normal	NSW_0356_PFASOMP_22	<0.01		*0.02*		0.02	
On-base - FCFS and FTP (Deep)	MW011	02 Jul 2024	0356_MW011_240702	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.04	
On-base - FCFS and FTP (Deep)	MW167	02 Oct 2018	0356_CNN0230_GW01_181002	Normal	NSW_0356_PFAS	<0.05		<0.05		<0.05	
On-base - FCFS and FTP (Deep)	MW167	01 Mar 2019	0356_CNN0230_GW01_190301	Normal	NSW_0356_PFAS	<0.002		*0.012*		<0.002	
On-base - FCFS and FTP (Deep)	MW167	15 May 2019	0356_CNN0230_GW01_190515	Normal	NSW_0356_PFAS	<0.01		*0.21*		0.02	
On-base - FCFS and FTP (Deep)	MW167	21 Jul 2022	0356_MW167_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - FCFS and FTP (Deep)	MW167	02 Jul 2024	0356_MW167_240702	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - HLG (Shallow)	MW059	08 May 2019	0356_HLG_GW03_190508	Normal	NSW_0356_PFAS	<0.01		*0.04*		0.04	
On-base - HLG (Shallow)	MW059	21 Jul 2022	0356_MW059_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		0.04	
On-base - HLG (Shallow)	MW059	02 Jul 2024	0356_MW059_240702	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		0.04	
On-base - Northern Boundary (Shallow)	MW110	07 May 2019	0356_GW03S_190507	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Shallow)	MW110	20 Oct 2020	0356-GW03S-201020	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Shallow)	MW110	21 Jul 2022	0356_MW110_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW110	18 Jan 2023	0356_MW110_230118	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW110	17 Jul 2023	0356_MW110_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW110	23 Jan 2024	0356_MW110_240123	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW110	04 Jul 2024	0356_MW110_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW110	18 Feb 2025	0356_MW110_250218	Normal	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW115	06 May 2019	0356_GW04S_190506	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Shallow)	MW115	20 Oct 2020	0356-GW04S-201020	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Shallow)	MW115	21 Jul 2022	0356_MW115_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW115	17 Jul 2023	0356_MW115_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW115	04 Jul 2024	0356_MW115_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW118	06 May 2019	0356_GW05S_190506	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Shallow)	MW118	21 Jul 2022	0356_MW118_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_MW118_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_QC100_230717	Field_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW118	17 Jul 2023	0356_QC200_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Shallow)	MW118	04 Jul 2024	0356_MW118_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	06 May 2019	0356_GW02D_190506	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW102	08 May 2019	0356_GW02D_190508	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW102	20 Oct 2020	0356-GW-02D-201020	Normal	NSW_0356_PFAS	<0.01		*0.02*		<0.02	
On-base - Northern Boundary (Deep)	MW102	21 Jul 2022	0356_MW102_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Jan 2023	0356_MW102_230118	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Jan 2023	0356_QC104_230118	Field_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Jan 2023	0356_QC204_230118	Interlab_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	17 Jul 2023	0356_MW102_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	23 Jan 2024	0356_MW102_240123	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_MW102_240702	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_QC102_240702	Field_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	02 Jul 2024	0356_QC202_240702	Interlab_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_MW102_250218	Normal	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_QC102_250218	Field_D	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW102	18 Feb 2025	0356_QC202_250218	Interlab_D	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW109	10 May 2019	0356_GW03D_190510	Normal	NSW_0356_PFAS	<0.01		*0.28*		<0.02	
On-base - Northern Boundary (Deep)	MW109	28 May 2019	0356_GW03D_190528	Normal	NSW_0356_PFAS	<0.01		*0.16*		<0.02	
On-base - Northern Boundary (Deep)	MW109	19 Oct 2020	0356_QC254_201020	Interlab_D	NSW_0356_PFAS	<0.01		<0.02		<0.01	
On-base - Northern Boundary (Deep)	MW109	20 Oct 2020	0356-GW03D-201020	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW109	20 Oct 2020	0356-QC154-201020	Field_D	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW109	21 Jul 2022	0356_MW109_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW109	18 Jan 2023	0356_MW109_230118	Normal	NSW_0356_PFASOMP_23	<0.01		*0.06*		0.06	
On-base - Northern Boundary (Deep)	MW109	17 Jul 2023	0356_MW109_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_MW109_240123	Normal	NSW_0356_PFASOMP_24	<0.01		*0.05*		0.06	
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_QC102_240123	Field_D	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.03	
On-base - Northern Boundary (Deep)	MW109	23 Jan 2024	0356_QC202_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW109	04 Jul 2024	0356_MW109_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW109	18 Feb 2025	0356_MW109_250218	Normal	NSW_0356_PFASOMP_25	<0.01		*0.11*		0.16	
On-base - Northern Boundary (Deep)	MW114	06 May 2019	0356_GW04D_190506	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW114	20 Oct 2020	0356-GW04D-201020	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
On-base - Northern Boundary (Deep)	MW114	21 Jul 2022	0356_MW114_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
On-base - Northern Boundary (Deep)	MW114	17 Jul 2023	0356_MW114_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	

Table D1 - Historical Groundwater Analytical Results and Deviations

						PFAS Results and Deviations					
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFHxS	PFHxS Deviations
						µg/L		µg/L			
LOR						0.002		0.002		0.002	
Australian Drinking Water Guidelines 2025						0.2		0.008		0.03	
PFAS NEMP 2025 Freshwater 99%						*19*		*0.00023*			
Area (Aquifer)	Location	Date	Field ID	Sample Type	Project ID						
On-base - Northern Boundary (Deep)	MW114	04 Jul 2024	0356_MW114_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW126	03 May 2019	0356_GW08S_190503	Normal	NSW_0356_PFAS	<0.05		<0.05		<0.05	
Off-base - Northern Boundary (Shallow)	MW126	22 Jul 2022	0356_MW126_220722	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		0.03	
Off-base - Northern Boundary (Shallow)	MW126	18 Jul 2023	0356_MW126_230718	Normal	NSW_0356_PFASOMP_23	<0.01		*0.22*		0.02	
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_MW126_2310250850	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.02	
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_MW126_2310251035	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.02	
Off-base - Northern Boundary (Shallow)	MW126	25 Oct 2023	0356_QC100_231025	Field_D	NSW_0356_PFASOMP_23	<0.01		<0.01		0.02	
Off-base - Northern Boundary (Shallow)	MW126	24 Jan 2024	0356_MW126_240124	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		0.02	
Off-base - Northern Boundary (Shallow)	MW126	03 Jul 2024	0356_MW126_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		0.01	
Off-base - Northern Boundary (Shallow)	MW128	03 May 2019	0356_GW09S_190503	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - Northern Boundary (Shallow)	MW128	30 May 2019	0356_GW09S_190530	Normal	NSW_0356_PFAS	<0.01		*0.02*		<0.02	
Off-base - Northern Boundary (Shallow)	MW128	22 Jul 2022	0356_MW128_220722	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW128	18 Jul 2023	0356_MW128_230718	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW128	03 Jul 2024	0356_MW128_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW188S	03 Sep 2020	0356_MW10S_200903	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - Northern Boundary (Shallow)	MW188S	03 Sep 2020	0356_QC151_200903	Field_D	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - Northern Boundary (Shallow)	MW188S	22 Jul 2022	0356_MW188S_220722	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW188S	19 Jul 2023	0356_MW188S_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
Off-base - Northern Boundary (Shallow)	MW188S	03 Jul 2024	0356_MW188S_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		0.04	First-time Detection
Off-base - Northern Boundary (Deep)	MW188D	03 Aug 2020	0356_QC251_200903	Interlab_D	NSW_0356_PFAS	<0.01		<0.02		<0.01	
Off-base - Northern Boundary (Deep)	MW188D	03 Aug 2020	QC251_200903	Interlab_D	NSW_0356_PFAS	<0.01		<0.02		<0.01	
Off-base - Northern Boundary (Deep)	MW188D	03 Sep 2020	0356_MW10D_200903	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - Northern Boundary (Deep)	MW188D	22 Jul 2022	0356_MW188D_220722	Normal	NSW_0356_PFASOMP_22	<0.01		*0.02*		<0.01	
Off-base - Northern Boundary (Deep)	MW188D	19 Jul 2023	0356_MW188D_230719	Normal	NSW_0356_PFASOMP_23	<0.01		*0.03*		<0.01	
Off-base - Northern Boundary (Deep)	MW188D	03 Jul 2024	0356_MW188D_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		<0.01	
Off-base - North (Shallow)	MW121	02 May 2019	0356_GW06_190502	Normal	NSW_0356_PFAS	0.01		<0.01		<0.02	
Off-base - North (Shallow)	MW121	31 May 2019	0356_GW06_190531	Normal	NSW_0356_PFAS	0.01		<0.01		<0.02	
Off-base - North (Shallow)	MW121	19 Oct 2020	0356_GW06_201019	Normal	NSW_0356_PFAS	0.02		*0.03*		<0.02	
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_MW121_220722	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_QC106_220722	Field_D	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW121	22 Jul 2022	0356_QC206_220722	Interlab_D	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW121	19 Jul 2023	0356_MW121_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW121	03 Jul 2024	0356_MW121_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		<0.01	
Off-base - North (Shallow)	MW124	02 May 2019	0356_GW07_190502	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - North (Shallow)	MW124	31 May 2019	0356_GW07_190531	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - North (Shallow)	MW124	19 Oct 2020	0356_GW07_201019	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - North (Shallow)	MW124	20 Jul 2022	0356_MW124_220720	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		0.07	
Off-base - North (Shallow)	MW124	19 Jul 2023	0356_MW124_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		0.02	
Off-base - North (Shallow)	MW124	03 Jul 2024	0356_MW124_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.02	
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_MW187S_220720	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_QC102_220720	Field_D	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW187S	20 Jul 2022	0356_QC202_220720	Interlab_D	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW187S	19 Jul 2023	0356_MW187S_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
Off-base - North (Shallow)	MW187S	03 Jul 2024	0356_MW187S_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
Off-base - North (Deep)	MW187D	03 Sep 2020	0356_MW09D_200903	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02	
Off-base - North (Deep)	MW187D	20 Jul 2022	0356_MW187D_220720	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01	
Off-base - North (Deep)	MW187D	19 Jul 2023	0356_MW187D_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01	
Off-base - North (Deep)	MW187D	03 Jul 2024	0356_MW187D_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01	
Off-base - North East (Shallow)	MW056	08 May 2019	0356_GW12_190508	Normal	NSW_0356_PFAS	<0.01		<0.01		0.02	
Off-base - North East (Shallow)	MW056	30 May 2019	0356_GW12_190530	Normal	NSW_0356_PFAS	<0.01		*0.02*		0.02	
Off-base - North East (Shallow)	MW056	19 Jul 2023	0356_MW056_230719	Normal	NSW_0356_PFASOMP_23	<0.01		*0.12*		0.04	
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_MW056_2310251125	Normal	NSW_0356_PFASOMP_23	<0.01		*0.09*		0.03	
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_MW056_2310251200	Normal	NSW_0356_PFASOMP_23	<0.01		*0.06*		0.04	
Off-base - North East (Shallow)	MW056	25 Oct 2023	0356_QC101_231025	Field_D	NSW_0356_PFASOMP_23	<0.01		*0.1*		0.03	
Off-base - North East (Shallow)	MW056	24 Jan 2024	0356_MW056_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.08*		0.02	
Off-base - North East (Shallow)	MW056	03 Jul 2024	0356_MW056_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.07*	Exceedance of EPC (0.040)	0.02	
Off-base - North East (Shallow)	MW129	03 May 2019	0356_GW10S_190503	Normal	NSW_0356_PFAS	<0.01		<0.01		0.04	
Off-base - North East (Shallow)	MW129	30 May 2019	0356_GW10S_190530	Normal	NSW_0356_PFAS	<0.01		*0.02*		0.02	
Off-base - North East (Shallow)	MW132	06 Nov 2018	0356_RESI_GW011_181106	Normal	NSW_0356_PFAS	<0.01		*0.02*		0.03	
Off-base - North East (Shallow)	MW132	07 May 2019	0356_RESI_GW011_190507	Normal	NSW_0356_PFAS	<0.01		<0.01		0.02	
Off-base - North East (Shallow)	MW132	19 Jul 2022	0356_MW132_220719	Normal	NSW_0356_PFASOMP_22	<0.01		*0.03*		0.03	
Off-base - North East (Shallow)	MW139	18 Dec 2018	0356_RESI_GW013_181218	Normal	NSW_0356_PFAS	0.02		*0.03*		0.08	
Off-base - North East (Shallow)	MW139	08 May 2019	0356_RESI_GW013_190508	Normal	NSW_0356_PFAS	<0.01		*0.03*		0.08	
Off-base - North East (Shallow)	MW139	28 May 2020	0356_RESI_GW013_200528	Normal	NSW_0356_PFAS	0.02		*0.04*		0.06	
Off-base - North East (Shallow)	MW139	18 Jul 2023	0356_MW139_230718	Normal	NSW_0356_PFASOMP_23	<0.01		*0.02*		<0.01	
Off-base - North East (Shallow)	MW139	04 Jul 2024	0356_MW139_240704	Normal	NSW_0356_PFASOMP_24	0.01		*0.03*		0.01	

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
µg/L = micrograms per litre
DNSDC = Defence National Storage and Distribution Centre
FCFS = Former Cantonment Fire Station
FTP = Fire Training Pit
HLG = Helicopter Landing Ground
PFAS OMP data in July 2024 - June 2025 monitoring period

Table D2 - Historical Surface Water and Wastewater Analytical Results and Deviations

						PFAS Results and Deviations							
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFOS+ PFHxS	PFOS+PFHxS Deviations	PFHxS	PFHxS Deviations
						µg/L		µg/L		µg/L		µg/L	
LOR						0.002		0.002		0.002		0.002	
PFAS NEMP 2025 Recreational Water						10				2			
PFAS NEMP 2025 Freshwater 99%						*19*		*0.00023*					
Area	Location	Date	Field ID	Sample Type	Project ID								
On-base - Sub-catchment A	SW002	08 Oct 2018	0356_SW002_SW_181008	Normal	NSW_0356_PFAS	0.01		*0.33*		0.67		0.34	
On-base - Sub-catchment A	SW002	28 Feb 2019	0356_SW002_190228	Normal	NSW_0356_PFAS	0.007		*0.18*		0.39		0.21	
On-base - Sub-catchment A	SW002	24 Apr 2019	0356_SW002_190424	Normal	NSW_0356_PFAS	0.02		*0.31*		0.51		0.2	
On-base - Sub-catchment A	SW002	16 Apr 2020	0356_SW002_200416	Normal	NSW_0356_PFAS	<0.01		*0.26*		0.5		0.24	
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_SW002_220721	Normal	NSW_0356_PFASOMP_22	0.01		*0.33*		0.57		0.24	
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_QC104_220721	Field_D	NSW_0356_PFASOMP_22	0.01		*0.34*		0.55		0.21	
On-base - Sub-catchment A	SW002	21 Jul 2022	0356_QC204_220721	Interlab_D	NSW_0356_PFASOMP_22	0.01		*0.42*		0.66		0.24	
On-base - Sub-catchment A	SW002	17 Jan 2023	0356_SW002_230117	Normal	NSW_0356_PFASOMP_23	0.05		*0.85*		1.66		0.81	
On-base - Sub-catchment A	SW002	17 Jul 2023	0356_SW002_230717	Normal	NSW_0356_PFASOMP_23	0.07		*1*		2.2		1.2	
On-base - Sub-catchment A	SW002	23 Jan 2024	0356_SW002_240123	Normal	NSW_0356_PFASOMP_24	0.04		*0.78*		1.23		0.45	
On-base - Sub-catchment A	SW002	02 Jul 2024	0356_SW002_240702	Normal	NSW_0356_PFASOMP_24	0.05		*0.67*		1.66		0.99	
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_SW002_250217	Normal	NSW_0356_PFASOMP_25	0.03		*0.68*		1.3		0.62	
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_QC101_250217	Field_D	NSW_0356_PFASOMP_25	0.02		*0.8*		1.35		0.55	
On-base - Sub-catchment A	SW002	17 Feb 2025	0356_QC201_250217	Interlab_D	NSW_0356_PFASOMP_25	0.03		*0.66*		1.2		0.54	
On-base - Sub-catchment A	SW003	30 Nov 2018	0356_SW003_181130	Normal	NSW_0356_PFAS	<0.01		*0.01*		0.01		<0.02	
On-base - Sub-catchment A	SW003	17 Apr 2019	0356_SW003_190417	Normal	NSW_0356_PFAS	0.02		*0.24*		0.47		0.23	
On-base - Sub-catchment A	SW003	21 Jul 2022	0356_SW003_220721	Normal	NSW_0356_PFASOMP_22	<0.01		*0.01*		0.03		0.02	
On-base - Sub-catchment A	SW003	17 Jan 2023	0356_SW003_230117	Normal	NSW_0356_PFASOMP_23	<0.01		*0.02*		0.04		0.02	
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_SW003_230717	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.02		0.01	
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_QC102_230717	Field_D	NSW_0356_PFASOMP_23	<0.01		*0.02*		0.03		0.01	
On-base - Sub-catchment A	SW003	17 Jul 2023	0356_QC202_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.02		0.01	
On-base - Sub-catchment A	SW003	23 Jan 2024	0356_SW003_240123	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment A	SW003	02 Jul 2024	0356_SW003_240724	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.03		0.01	
On-base - Sub-catchment A	SW003	18 Feb 2025	0356_SW003_250218	Normal	NSW_0356_PFASOMP_25	<0.01		*0.03*		0.05		0.02	
On-base - Sub-catchment A	SW026	08 Oct 2018	0356_SMA13_SW_181008	Normal	NSW_0356_PFAS	<0.01		*0.23*		0.35		0.12	
On-base - Sub-catchment A	SW026	24 Apr 2019	0356_SMA13_SW_190424	Normal	NSW_0356_PFAS	0.01		*0.24*		0.37		0.13	
On-base - Sub-catchment A	SW026	16 Apr 2020	0356_SMA13_200416	Normal	NSW_0356_PFAS	<0.01		*0.24*		0.35		0.11	
On-base - Sub-catchment A	SW026	16 Apr 2020	0356_QC101_200416	Field_D	NSW_0356_PFAS	<0.01		*0.27*		0.39		0.12	
On-base - Sub-catchment A	SW026	21 Jul 2022	0356_SW026_220721	Normal	NSW_0356_PFASOMP_22	0.02		*0.76*		1.2		0.44	
On-base - Sub-catchment A	SW026	17 Jan 2023	0356_SW026_230117	Normal	NSW_0356_PFASOMP_23	0.02		*0.63*		0.91		0.28	
On-base - Sub-catchment A	SW026	17 Jul 2023	0356_SW026_230717	Normal	NSW_0356_PFASOMP_23	<0.01		*0.33*		0.49		0.16	
On-base - Sub-catchment A	SW026	23 Jan 2024	0356_SW026_240123	Normal	NSW_0356_PFASOMP_24	0.02		*0.89*		1.21		0.32	
On-base - Sub-catchment A	SW026	02 Jul 2024	0356_SW026_240702	Normal	NSW_0356_PFASOMP_24	0.01		*0.45*		0.79		0.34	
On-base - Sub-catchment A	SW026	17 Feb 2025	0356_SW026_250217	Normal	NSW_0356_PFASOMP_25	<0.01		*0.28*		0.46		0.18	
On-base - Sub-catchment A	SW032	22 Mar 2019	0356_SW032_190322	Normal	NSW_0356_PFAS	<0.01		*0.07*		0.09		0.02	
On-base - Sub-catchment A	SW032	21 Jul 2022	0356_SW032_220721	Normal	NSW_0356_PFASOMP_22	0.03		*0.86*		1.57		0.71	
On-base - Sub-catchment A	SW032	17 Jan 2023	0356_SW032_230117	Normal	NSW_0356_PFASOMP_23	0.08		*2.13*		3.82		1.69	
On-base - Sub-catchment A	SW032	17 Jul 2023	0356_SW032_230717	Normal	NSW_0356_PFASOMP_23	0.04		*2.02*		3.03		1.01	
On-base - Sub-catchment A	SW032	23 Jan 2024	0356_SW032_240123	Normal	NSW_0356_PFASOMP_24	<0.01		*0.32*		0.39		0.07	
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_SW032_240702	Normal	NSW_0356_PFASOMP_24	<0.01		*0.43*		0.67		0.24	
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_QC100_240702	Field_D	NSW_0356_PFASOMP_24	<0.01		*0.47*		0.68		0.21	
On-base - Sub-catchment A	SW032	02 Jul 2024	0356_QC200_240702	Interlab_D	NSW_0356_PFASOMP_24	0.01		*0.36*		0.58		0.22	
On-base - Sub-catchment A	SW032	17 Feb 2025	0356_SW032_250217	Normal	NSW_0356_PFASOMP_25	0.01		*0.54*		0.8		0.26	
On-base - Sub-catchment A	SW034	30 Nov 2018	0356_SMA8_SW_181130	Normal	NSW_0356_PFAS	<0.01		*0.16*		0.25		0.09	
On-base - Sub-catchment A	SW034	08 Feb 2019	0356_SMA8_SW_190208	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
On-base - Sub-catchment A	SW034	24 Apr 2019	0356_SMA8_SW_190424	Normal	NSW_0356_PFAS	<0.01		*0.21*		0.31		0.1	
On-base - Sub-catchment A	SW034	24 Apr 2020	0356_SMA8_200424	Normal	NSW_0356_PFAS	0.01		*0.43*		0.87		0.44	
On-base - Sub-catchment A	SW034	19 Oct 2020	0356_SMA8_201019	Normal	NSW_0356_PFAS	<0.01		*0.35*		0.71		0.36	
On-base - Sub-catchment A	SW034	21 Jul 2022	0356_SW034_220721	Normal	NSW_0356_PFASOMP_22	0.01		*0.35*		0.59		0.24	
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_SW034_230117	Normal	NSW_0356_PFASOMP_23	0.04		*1.35*		1.9		0.55	
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_QC103_230117	Field_D	NSW_0356_PFASOMP_23	0.04		*1.33*		1.85		0.52	
On-base - Sub-catchment A	SW034	17 Jan 2023	0356_QC203_230117	Interlab_D	NSW_0356_PFASOMP_23	0.03		*1.1*		1.8		0.73	
On-base - Sub-catchment A	SW034	17 Jul 2023	0356_SW034_230717	Normal	NSW_0356_PFASOMP_23	0.02		*0.54*		0.93		0.39	
On-base - Sub-catchment A	SW034	09 Apr 2024	0356_SW034_2404091500	Normal	NSW_0356_PFASOMP_24	<0.01		*0.22*		0.5		0.28	
On-base - Sub-catchment A	SW034	13 Apr 2024	0356_SW034_2404132200	Normal	NSW_0356_PFASOMP_24	<0.01		*0.22*		0.47		0.25	
On-base - Sub-catchment A	SW034	17 Apr 2024	0356_SW034_2404172300	Normal	NSW_0356_PFASOMP_24	<0.01		*0.27*		0.53		0.26	
On-base - Sub-catchment A	SW034	18 Apr 2024	0356_SW034_2404180000	Normal	NSW_0356_PFASOMP_24	<0.01		*0.28*		0.55		0.27	
On-base - Sub-catchment A	SW034	22 Apr 2024	0356_SW034_2404221300	Normal	NSW_0356_PFASOMP_24	<0.01		*0.18*		0.36		0.18	
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405041845	Normal	NSW_0356_PFASOMP_24	<0.01		*0.17*		0.34		0.17	
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405042030	Normal	NSW_0356_PFASOMP_24	<0.01		*0.23*		0.52		0.29	
On-base - Sub-catchment A	SW034	04 May 2024	0356_SW034_2405042315	Normal	NSW_0356_PFASOMP_24	<0.01		*0.24*		0.58		0.34	
On-base - Sub-catchment A	SW034	05 May 2024	0356_SW034_2405050200	Normal	NSW_0356_PFASOMP_24	<0.01		*0.23*		0.55		0.32	
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405060845	Normal	NSW_0356_PFASOMP_24	<0.01		*0.27*		0.64		0.37	
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405060945	Normal	NSW_0356_PFASOMP_24	<0.01		*0.28*		0.64		0.36	
On-base - Sub-catchment A	SW034	06 May 2024	0356_SW034_2405061045	Normal	NSW_0356_PFASOMP_24	<0.01		*0.25*		0.6		0.35	
On-base - Sub-catchment A	SW034	02 Jul 2024	0356_SW034_240702	Normal	NSW_0356_PFASOMP_24	0.02		*0.61*		1.16		0.55	
On-base - Sub-catchment A	SW034	17 Feb 2025	0356_SW034_250217	Normal	NSW_0356_PFASOMP_25	<0.01		*0.39*		0.59		0.2	
On-base - Sub-catchment A	SW114	21 Jul 2022	0356_SW114_220721	Normal	NSW_0356_PFASOMP_22	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment A	SW114	04 Jul 2024	0356_SW114_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_SWA7_SW_181025	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.02		<0.02	
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_QC134_SW_181025	Field_D	NSW_0356_PFAS	<0.01		<0.01		<0.02		<0.02	
On-base - Sub-catchment B	SW028	25 Oct 2018	0356_QC234_SW_181025	Interlab_D	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	17 Apr 2019	0356_SMA7_SW_190417	Normal	NSW_0356_PFAS	<0.01		*0.03*		0.03		<0.02	
On-base - Sub-catchment B	SW028	21 Jul 2022	0356_SW028_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		0.02		0.02	
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_SW028_230117	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_QC101_230117	Field_D	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment B	SW028	17 Jan 2023	0356_QC201_230117	Interlab_D	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_SW028_230718	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_QC103_230718	Field_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	18 Jul 2023	0356_QC203_230718	Interlab_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_SW028_240123	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.02		<0.01	
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_QC100_240123	Field_D	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment B	SW028	23 Jan 2024	0356_QC200_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW028	02 Jul 2024	0356_SW028_240702	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.01		<0.01	
On-base - Sub-catchment B	SW028	17 Feb 2025	0356_SW028_250217	Normal	NSW_0356_PFASOMP_25	<0.01		*0.02*		0.03		0.01	
On-base - Sub-catchment B	SW555	21 Jul 2022	0356_SW555_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW555	17 Jul 2023	0356_SW555_230717	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment B	SW555	23 Jan 2024	0356_SW555_240123	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.03		0.01	
On-base - Sub-catchment C	SW040	07 May 2019	0356_SW040_190507	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
On-base - Sub-catchment C	SW040	21 Jul 2022	0356_SW040_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment C	SW040	17 Jan 2023	0356_SW040_230117	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment C	SW040	18 Jul 2023	0356_SW040_230718	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment C	SW040	23 Jan 2024	0356_SW040_240123	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment C	SW040	04 Jul 2024	0356_SW040_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Sub-catchment C	SW040	17 Feb 2025	0356_SW040_250217	Normal	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01		<0.01	
On-base - Boundary	SW115	21 Jul 2022	0356_SW115_220721	Normal	NSW_0356_PFASOMP_22	0.01		*0.49*		0.82		0.33	
On-base - Boundary	SW115	02 Jul 2024	0356_SW115_240702	Normal	NSW_0356_PFASOMP_24	0.03		*0.85*		1.53		0.68	
On-base - Boundary	SW116	21 Jul 2022	0356_SW116_220721	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
On-base - Boundary	SW116	04 Jul 2024	0356_SW116_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	30 Nov 2018	0356_SW004_181130	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
On-base - Dochra Airfield	SW004	18 Apr 2019	0356_SW004_190418	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
On-base - Dochra Airfield	SW004	18 Apr 2020	0356_SW004_200418	Normal	NSW_0356_PFAS	<0.002		<0.002		<0.002		<0.002	
On-base - Dochra Airfield	SW004	19 Jul 2022	0356_SW004_220719	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	19 Jan 2023	0356_SW004_230119	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	19 Jul 2023	0356_SW004_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_SW004_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_QC103_240704	Field_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW004	04 Jul 2024	0356_QC203_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	

Table D2 - Historical Surface Water and Wastewater Analytical Results and Deviations

						PFAS Results and Deviations							
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFOS+ PFHxS	PFOS+PFHxS Deviations	PFHxS	PFHxS Deviations
						µg/L		µg/L		µg/L		µg/L	
LOR						0.002		0.002		0.002		0.002	
PFAS NEMP 2025 Recreational Water						10				2			
PFAS NEMP 2025 Freshwater 99%						*19*		*0.00023*					
Area	Location	Date	Field ID	Sample Type	Project ID								
On-base - Dochra Airfield	SW005	30 Nov 2018	0356_SW005_181130	Normal	NSW_0356_PFAS	<0.01		*0.02*		0.02		<0.02	
On-base - Dochra Airfield	SW005	18 Apr 2019	0356_SW005_190418	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
On-base - Dochra Airfield	SW005	18 Apr 2019	0356_QC241_SW_190418	Interlab_D	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW005	18 Apr 2020	0356_SW005_200418	Normal	NSW_0356_PFAS	<0.002		*0.009*		0.013		0.004	
On-base - Dochra Airfield	SW005	19 Jul 2022	0356_SW005_220719	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW005	19 Jul 2023	0356_SW005_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
On-base - Dochra Airfield	SW005	04 Jul 2024	0356_SW005_240704	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
Off-base - North East	SW039	12 Apr 2019	0356_RESI_SW039_190412	Normal	NSW_0356_PFAS	0.02		*0.08*		0.08		<0.02	
Off-base - North East	SW039	12 Apr 2019	0356_QC240_190412	Interlab_D	NSW_0356_PFAS	0.02		*0.07*		0.07		<0.01	
Off-base - North East	SW039	20 Apr 2020	0356-RESI-SW039-200420	Normal	NSW_0356_PFAS	<0.01		*0.01*		0.01		<0.02	
Off-base - North East	SW039	20 Jul 2022	0356_SW039_220720	Normal	NSW_0356_PFASOMP_22	<0.01		*0.01*		0.02		0.01	
Off-base - North East	SW039	18 Jan 2023	0356_SW039_230118	Normal	NSW_0356_PFASOMP_23	<0.01		*0.03*		0.04		0.01	
Off-base - North East	SW039	18 Jul 2023	0356_SW039_230718	Normal	NSW_0356_PFASOMP_23	<0.01		*0.02*		0.02		<0.01	
Off-base - North East	SW039	24 Jan 2024	0356_SW039_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.03*		0.03		<0.01	
Off-base - North East	SW039	03 Jul 2024	0356_SW039_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.02		<0.01	
Off-base - North East	SW039	18 Feb 2025	0356_SW039_250218	Normal	NSW_0356_PFASOMP_25	<0.01		*0.02*		0.02		<0.01	
Off-base - North East	SW064	17 Apr 2019	0356_RESI_SW041_190417	Normal	NSW_0356_PFAS	0.02		*0.02*		0.02		<0.02	
Off-base - North East	SW064	17 Apr 2019	0356_QC141_190417	Field_D	NSW_0356_PFAS	0.01		*0.02*		0.02		<0.02	
Off-base - North East	SW064	22 Apr 2020	0356_RESI_SW041_200422	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
Off-base - North East	SW064	22 Apr 2020	0356_QC204_200422	Interlab_D	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.01	
Off-base - North East	SW064	20 Jul 2022	0356_SW064_220720	Normal	NSW_0356_PFASOMP_22	<0.01		*0.02*		0.04		0.02	
Off-base - North East	SW064	18 Jan 2023	0356_SW064_230118	Normal	NSW_0356_PFASOMP_23	0.02		*0.06*		0.08		0.02	
Off-base - North East	SW064	19 Jul 2023	0356_SW064_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
Off-base - North East	SW064	24 Jan 2024	0356_SW064_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.03*		0.03		<0.01	
Off-base - North East	SW064	03 Jul 2024	0356_SW064_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
Off-base - North East	SW064	19 Feb 2025	0356_SW064_250219	Normal	NSW_0356_PFASOMP_25	<0.01		*0.04*		0.04		<0.01	
Off-base - Singleton STP	OTH006	03 Apr 2019	0356_OTH006_190403	Normal	NSW_0356_PFAS	<0.01		*0.02*		0.04		0.02	
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_OTH006_201019	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_QC152_201019	Field_D	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
Off-base - Singleton STP	OTH006	19 Oct 2020	0356_QC252_201019	Interlab_D	NSW_0356_PFAS	<0.01		<0.02		<0.02		<0.01	
Off-base - Singleton STP	OTH006	20 Jul 2022	0356_OTH006_220720	Normal	NSW_0356_PFASOMP_22	0.01		*0.12*		0.23		0.11	
Off-base - Singleton STP	OTH006	18 Jan 2023	0356_OTH006_230118	Normal	NSW_0356_PFASOMP_23	<0.01		*0.16*		0.2		0.04	
Off-base - Singleton STP	OTH006	19 Jul 2023	0356_OTH006_230719	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.01		<0.01	
Off-base - Singleton STP	OTH006	24 Jan 2024	0356_OTH006_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.12*		0.15		0.03	
Off-base - Singleton STP	OTH006	03 Jul 2024	0356_OTH006_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.07*		0.09		0.02	
Off-base - Singleton STP	OTH006	19 Feb 2025	0356_OTH006_250219	Normal	NSW_0356_PFASOMP_25	<0.01		*0.01*		0.01		<0.01	
Off-base - Singleton STP	SW065	17 Apr 2019	0356_RESI_SW042_190417	Normal	NSW_0356_PFAS	0.02		*0.03*		0.03		<0.02	
Off-base - Singleton STP	SW065	20 Jul 2022	0356_SW065_220720	Normal	NSW_0356_PFASOMP_22	<0.01		*0.01*		0.02		0.01	
Off-base - Singleton STP	SW065	20 Jul 2022	0356_QC101_220720	Field_D	NSW_0356_PFASOMP_22	<0.01		*0.02*		0.03		0.01	
Off-base - Singleton STP	SW065	20 Jul 2022	0356_QC201_220720	Interlab_D	NSW_0356_PFASOMP_22	<0.01		*0.02*		0.05		0.02	
Off-base - Singleton STP	SW065	18 Jan 2023	0356_SW065_230118	Normal	NSW_0356_PFASOMP_23	<0.01		*0.03*		0.03		<0.01	
Off-base - Singleton STP	SW065	19 Jul 2023	0356_SW065_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW065	19 Jul 2023	0356_QC105_230719	Field_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW065	19 Jul 2023	0356_QC205_230719	Interlab_D	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW065	24 Jan 2024	0356_SW065_240124	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW065	03 Jul 2024	0356_SW065_240703	Normal	NSW_0356_PFASOMP_24	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW065	19 Feb 2025	0356_SW065_250219	Normal	NSW_0356_PFASOMP_25	<0.01		*0.01*		0.01		<0.01	
Off-base - Singleton STP	SW553	19 Oct 2020	0356_SW553_201019	Normal	NSW_0356_PFAS	0.01		*0.25*		0.53		0.28	
Off-base - Singleton STP	SW553	20 Jul 2022	0356_SW553_220720	Normal	NSW_0356_PFASOMP_22	<0.01		*0.08*		0.15		0.07	
Off-base - Singleton STP	SW553	18 Jan 2023	0356_SW553_230118	Normal	NSW_0356_PFASOMP_23	0.01		*0.3*		0.5		0.2	
Off-base - Singleton STP	SW553	19 Jul 2023	0356_SW553_230719	Normal	NSW_0356_PFASOMP_23	0.01		*0.22*		0.49		0.27	
Off-base - Singleton STP	SW553	03 Jul 2024	0356_SW553_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.11*		0.25		0.14	
Off-base - Singleton STP	SW553	19 Feb 2025	0356_SW553_250219	Normal	NSW_0356_PFASOMP_25	<0.01		*0.03*		0.03		<0.01	
Off-base - Singleton STP	SW563	19 Jul 2023	0356_SW563_230719	Normal	NSW_0356_PFASOMP_23	<0.01		<0.01		<0.01		<0.01	
Off-base - Singleton STP	SW563	24 Jan 2024	0356_SW563_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.01		<0.01	
Off-base - Singleton STP	SW563	03 Jul 2024	0356_SW563_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.02		<0.01	
Off-base - Singleton STP	SW563	19 Feb 2025	0356_SW563_250219	Normal	NSW_0356_PFASOMP_25	<0.01		*0.02*		0.02		<0.01	
Off-base - North West	SW035	11 Apr 2019	0356_RESI_SW035_190411	Normal	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
Off-base - North West	SW035	11 Apr 2019	0356_QC140_190411	Field_D	NSW_0356_PFAS	<0.01		<0.01		<0.01		<0.02	
Off-base - North West	SW035	19 Jul 2022	0356_SW035_220719	Normal	NSW_0356_PFASOMP_22	<0.01		<0.01		<0.01		<0.01	
Off-base - North West	SW035	18 Jan 2023	0356_SW035_230118	Normal	NSW_0356_PFASOMP_23	<0.01		*0.01*		0.01		<0.01	
Off-base - North West	SW035	18 Jul 2023	0356_SW035_230718	Normal	NSW_0356_PFASOMP_23	<0.01		*0.02*		0.02		<0.01	
Off-base - North West	SW035	24 Jan 2024	0356_SW035_240124	Normal	NSW_0356_PFASOMP_24	<0.01		*0.02*		0.04		0.02	
Off-base - North West	SW035	03 Jul 2024	0356_SW035_240703	Normal	NSW_0356_PFASOMP_24	<0.01		*0.01*		0.01		<0.01	
Off-base - North West	SW035	18 Feb 2025	0356_SW035_250218	Normal	NSW_0356_PFASOMP_25	<0.01		<0.01		<0.01		<0.01	
Off-base - North West	SW036	11 Apr 2019	0356_RESI_SW036_190411	Normal	NSW_0356_PFAS	<0.01		*0.2*		0.29		0.09	
Off-base - North West	SW036	19 Jul 2022	0356_SW036_220719	Normal	NSW_0356_PFASOMP_22	<0.01		*0.23*		0.38		0.15	
Off-base - North West	SW036	18 Jan 2023	0356_SW036_230118	Normal	NSW_0356_PFASOMP_23	0.03		*0.94*		1.52		0.58	
Off-base - North West	SW036	18 Jul 2023	0356_SW036_230718	Normal	NSW_0356_PFASOMP_23	0.02		*0.58*		0.95		0.37	
Off-base - North West	SW036	24 Jan 2024	0356_SW036_240124	Normal	NSW_0356_PFASOMP_24	0.03		*0.79*		1.6		0.81	
Off-base - North West	SW036	03 Jul 2024	0356_SW036_240724	Normal	NSW_0356_PFASOMP_24	0.01		*0.46*		0.82		0.36	Exceedance of EPC (0.280)
Off-base - North West	SW036	18 Feb 2025	0356_SW036_250218	Normal	NSW_0356_PFASOMP_25	<0.01		*0.42*		0.63		0.21	

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
µg/L = micrograms per litre
STP = Sewage Treatment Plant
PFAS OMP data in July 2024 - June 2025 monitoring period

Table D3 - Historical Sedidment Analytical Results and Deviations

						PFAS Results and Deviations					
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFHxS	PFHxS Deviations
						mg/kg		mg/kg		mg/kg	
LOR						0.0001		0.0001		0.0001	
Area	Location	Date	Field ID	Sample Type	Project ID						
On-base - Sub-catchment A	SD002	08 Oct 2018	0356_SD002_181008	Normal	NSW_0356_PFAS	<0.0002		0.0024		0.0004	
On-base - Sub-catchment A	SD002	28 Feb 2019	0356_SD002_190228	Normal	NSW_0356_PFAS	<0.0002		0.001		<0.0002	
On-base - Sub-catchment A	SD002	24 Apr 2019	0356_SD002_190424	Normal	NSW_0356_PFAS	<0.0002		0.0029		<0.0002	
On-base - Sub-catchment A	SD002	16 Apr 2020	0356_SD002_200416	Normal	NSW_0356_PFAS	<0.0002		0.001		<0.0002	
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_SD002_220721	Normal	NSW_0356_PFASOMP_22	0.0002		0.0428		0.0018	
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_QC105_220721	Field_D	NSW_0356_PFASOMP_22	0.0002		0.0345		0.0017	
On-base - Sub-catchment A	SD002	21 Jul 2022	0356_QC205_220721	Interlab_D	NSW_0356_PFASOMP_22	<0.0001		0.037		0.0017	
On-base - Sub-catchment A	SD002	17 Jan 2023	0356_SD002_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.006		0.0018	
On-base - Sub-catchment A	SD002	17 Jul 2023	0356_SD002_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0013		0.0003	
On-base - Sub-catchment A	SD002	23 Jan 2024	0356_SD002_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0038		0.0005	
On-base - Sub-catchment A	SD002	02 Jul 2024	0356_SD002_240702	Normal	NSW_0356_PFASOMP_24	0.0002		0.0087		0.0016	
On-base - Sub-catchment A	SD002	17 Feb 2025	0356_SD002_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0045		0.0006	
On-base - Sub-catchment A	SD003	05 Oct 2018	0356_SD003_181005	Normal	NSW_0356_PFAS	<0.0002		0.0009		<0.0002	
On-base - Sub-catchment A	SD003	28 Feb 2019	0356_SD003_190228	Normal	NSW_0356_PFAS	<0.0002		0.0013		<0.0002	
On-base - Sub-catchment A	SD003	17 Apr 2019	0356_SD003_190417	Normal	NSW_0356_PFAS	<0.0002		0.0334		0.0035	
On-base - Sub-catchment A	SD003	21 Jul 2022	0356_SD003_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0026		<0.0002	
On-base - Sub-catchment A	SD003	17 Jan 2023	0356_SD003_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0003		<0.0002	
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_SD003_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0028		<0.0002	
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_QC101_230717	Field_D	NSW_0356_PFASOMP_23	<0.0002		0.0009		<0.0002	
On-base - Sub-catchment A	SD003	17 Jul 2023	0356_QC201_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.0001		0.0032		0.0002	
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_SD003_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0012		<0.0002	
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_QC104_240123	Field_D	NSW_0356_PFASOMP_24	<0.0002		0.001		<0.0002	
On-base - Sub-catchment A	SD003	23 Jan 2024	0356_QC204_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.0001		0.0011		<0.0001	
On-base - Sub-catchment A	SD003	02 Jul 2024	0356_SD003_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0045		0.0006	
On-base - Sub-catchment A	SD003	18 Feb 2025	0356_SD003_250218	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0041		0.0004	
On-base - Sub-catchment A	SD032	22 Mar 2019	0356_SD032_190322	Normal	NSW_0356_PFAS	<0.0002		0.0006		<0.0002	
On-base - Sub-catchment A	SD032	21 Jul 2022	0356_SD032_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0044		0.0007	
On-base - Sub-catchment A	SD032	17 Jan 2023	0356_SD032_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0009		<0.0002	
On-base - Sub-catchment A	SD032	17 Jul 2023	0356_SD032_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0004		<0.0002	
On-base - Sub-catchment A	SD032	23 Jan 2024	0356_SD032_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0044		0.0002	
On-base - Sub-catchment A	SD032	02 Jul 2024	0356_SD032_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.004		0.0005	
On-base - Sub-catchment A	SD032	02 Jul 2024	0356_QC101_240702	Field_D	NSW_0356_PFASOMP_24	<0.0002		0.0054		0.0006	
On-base - Sub-catchment A	SD032	02 Jul 2024	0356_QC201_240702	Interlab_D	NSW_0356_PFASOMP_24	<0.0001		0.0038		0.0006	
On-base - Sub-catchment A	SD032	17 Feb 2025	0356_SD032_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0266		0.0013	
On-base - Sub-catchment A	SD053	08 Oct 2018	0356_SMA13_SD_181008	Normal	NSW_0356_PFAS	<0.0002		0.002		<0.0002	
On-base - Sub-catchment A	SD053	28 Feb 2019	0356_SMA13__SD_190228	Normal	NSW_0356_PFAS	<0.0002		0.0226		0.0011	
On-base - Sub-catchment A	SD053	24 Apr 2019	0356_SMA13_SD_190424	Normal	NSW_0356_PFAS	<0.0002		0.0016		<0.0002	
On-base - Sub-catchment A	SD053	16 Apr 2020	0356_SMA13_SD_200416	Normal	NSW_0356_PFAS	<0.0002		0.0118		<0.0002	
On-base - Sub-catchment A	SD053	16 Apr 2020	0356_QC102_200416	Field_D	NSW_0356_PFAS	<0.0002		0.0613		0.0004	
On-base - Sub-catchment A	SD053	21 Jul 2022	0356_SD053_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0043		0.0002	
On-base - Sub-catchment A	SD053	17 Jan 2023	0356_SD053_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0051		0.0004	
On-base - Sub-catchment A	SD053	17 Jul 2023	0356_SD053_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0017		<0.0002	
On-base - Sub-catchment A	SD053	23 Jan 2024	0356_SD053_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0016		0.0002	
On-base - Sub-catchment A	SD053	02 Jul 2024	0356_SD053_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.005		0.0005	
On-base - Sub-catchment A	SD053	17 Feb 2025	0356_SD053_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0264		0.0013	
On-base - Sub-catchment A	SD065	08 Oct 2018	0356_SMA8_SD_181008	Normal	NSW_0356_PFAS	<0.0002		0.0024		<0.0002	
On-base - Sub-catchment A	SD065	28 Feb 2019	0356_SMA8_SD_190228	Normal	NSW_0356_PFAS	<0.0002		0.0066		0.0005	
On-base - Sub-catchment A	SD065	24 Apr 2019	0356_SMA8_SD_190424	Normal	NSW_0356_PFAS	<0.0002		0.0048		0.0004	
On-base - Sub-catchment A	SD065	21 Jul 2022	0356_SD065_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0007		<0.0002	
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_SD065_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0006		<0.0002	
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_QC102_230117	Field_D	NSW_0356_PFASOMP_23	<0.0002		0.0007		<0.0002	
On-base - Sub-catchment A	SD065	17 Jan 2023	0356_QC202_230117	Interlab_D	NSW_0356_PFASOMP_23	<0.0001		0.0006		0.0001	
On-base - Sub-catchment A	SD065	17 Jul 2023	0356_SD065_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0005		<0.0002	
On-base - Sub-catchment A	SD065	23 Jan 2024	0356_SD065_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0064		0.0007	
On-base - Sub-catchment A	SD065	02 Jul 2024	0356_SD065_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0095		0.0019	
On-base - Sub-catchment A	SD065	17 Feb 2025	0356_SD065_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0107		0.0011	
On-base - Sub-catchment A	SD114	21 Jul 2022	0356_SD114_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0029		<0.0002	
On-base - Sub-catchment A	SD114	17 Jan 2023	0356_SD114_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0023		<0.0002	
On-base - Sub-catchment A	SD114	17 Jul 2023	0356_SD114_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0011		<0.0002	
On-base - Sub-catchment A	SD114	23 Jan 2024	0356_SD114_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0092		0.0002	
On-base - Sub-catchment A	SD114	04 Jul 2024	0356_SD114_240704	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0005		<0.0002	
On-base - Sub-catchment B	SD055	25 Oct 2018	0356_SMA7_SD_181025	Normal	NSW_0356_PFAS	<0.0002		0.0048		0.0006	
On-base - Sub-catchment B	SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS	<0.0002		0.0053		0.0004	
On-base - Sub-catchment B	SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS	<0.0002		0.0012		<0.0002	
On-base - Sub-catchment B	SD055	25 Oct 2018	0356_QC234_SD_181025	Interlab_D	NSW_0356_PFAS	<0.0002		0.0027		<0.0002	
On-base - Sub-catchment B	SD055	28 Feb 2019	0356_SMA7__SD_190228	Normal	NSW_0356_PFAS	<0.0002		0.001		<0.0002	
On-base - Sub-catchment B	SD055	17 Apr 2019	0356_SMA7_SD_190417	Normal	NSW_0356_PFAS	<0.0002		0.001		<0.0002	
On-base - Sub-catchment B	SD055	21 Jul 2022	0356_SD055_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0026		0.0003	
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_SD055_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.002		<0.0002	
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_QC100_230117	Field_D	NSW_0356_PFASOMP_23	<0.0002		0.0034		<0.0002	
On-base - Sub-catchment B	SD055	17 Jan 2023	0356_QC200_230117	Interlab_D	NSW_0356_PFASOMP_23	<0.0001		0.002		<0.0001	
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_SD055_230718	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0009		<0.0002	
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_QC104_230718	Field_D	NSW_0356_PFASOMP_23	<0.0002		0.0008		<0.0002	
On-base - Sub-catchment B	SD055	18 Jul 2023	0356_QC204_230718	Interlab_D	NSW_0356_PFASOMP_23	<0.0001		0.0009		<0.0001	
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_SD055_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.005		<0.0002	
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_QC101_240123	Field_D	NSW_0356_PFASOMP_24	<0.0002		0.0049		<0.0002	
On-base - Sub-catchment B	SD055	23 Jan 2024	0356_QC201_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.0001		0.003		<0.0001	
On-base - Sub-catchment B	SD055	02 Jul 2024	0356_SD055_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0039		0.0004	
On-base - Sub-catchment B	SD055	17 Feb 2025	0356_SD055_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0039		<0.0002	
On-base - Sub-catchment B	SD555	21 Jul 2022	0356_SD555_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0003		<0.0002	
On-base - Sub-catchment B	SD555	17 Jan 2023	0356_SD555_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0011		0.0002	
On-base - Sub-catchment B	SD555	17 Jul 2023	0356_SD555_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0012		<0.0002	
On-base - Sub-catchment B	SD555	23 Jan 2024	0356_SD555_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0046		<0.0002	
On-base - Sub-catchment C	SD040	07 May 2019	0356_SD040_190507	Normal	NSW_0356_PFAS	<0.0002		<0.0002		<0.0002	
On-base - Sub-catchment C	SD040	21 Jul 2022	0356_SD040_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0004		<0.0002	
On-base - Sub-catchment C	SD040	17 Jan 2023	0356_SD040_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	
On-base - Sub-catchment C	SD040	18 Jul 2023	0356_SD040_230718	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	
On-base - Sub-catchment C	SD040	23 Jan 2024	0356_SD040_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0008		<0.0002	
On-base - Sub-catchment C	SD040	04 Jul 2024	0356_SD040_240704	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0002		<0.0002	
On-base - Sub-catchment C	SD040	17 Feb 2025	0356_SD040_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0005		<0.0002	
On-base - Boundary	SD115	21 Jul 2022	0356_SD115_220721	Normal	NSW_0356_PFASOMP_22	0.0002		0.0457		0.0023	
On-base - Boundary	SD115	17 Jan 2023	0356_SD115_230117	Normal	NSW_0356_PFASOMP_23	0.0003		0.0351		0.0023	
On-base - Boundary	SD115	17 Jul 2023	0356_SD115_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0226		0.0013	
On-base - Boundary	SD115	23 Jan 2024	0356_SD115_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0114		0.0012	
On-base - Boundary	SD115	02 Jul 2024	0356_SD115_240702	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0362		0.0009	
On-base - Boundary	SD115	17 Feb 2025	0356_SD115_250217	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0026		0.0003	
On-base - Boundary	SD115	17 Feb 2025	0356_QC100_250217	Field_D	NSW_0356_PFASOMP_25	<0.0002		0.0036		0.0002	
On-base - Boundary	SD115	17 Feb 2025	0356_QC200_250217	Interlab_D	NSW_0356_PFASOMP_25	<0.0001		0.0044		0.0003	
On-base - Boundary	SD116	21 Jul 2022	0356_SD116_220721	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0007		<0.0002	
On-base - Boundary	SD116	17 Jan 2023	0356_SD116_230117	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0003		<0.0002	
On-base - Boundary	SD116	17 Jul 2023	0356_SD116_230717	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0007		<0.0002	
On-base - Boundary	SD116	23 Jan 2024	0356_SD116_240123	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0046		0.0002	
On-base - Boundary	SD116	04 Jul 2024	0356_SD116_240704	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0016		0.0004	
On-base - Boundary	SD116	18 Feb 2025	0356_SD116_250218	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0041		0.0003	
On-base - Dochra Airfield	SD004	12 Oct 2018	0356_SD004_181012	Normal	NSW_0356_PFAS	<0.0002		0.0002		<0.0002	
On-base - Dochra Airfield	SD004	17 Jan 2019	0356_NSW1164_SD004_190117	Normal	NSW_0356_PFAS	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	05 Mar 2019	0356_SD004_190305	Normal	NSW_0356_PFAS	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	18 Apr 2019	0356_SD004_190418	Normal	NSW_0356_PFAS	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	18 Apr 2020	0356_SD004_200418	Normal	NSW_0356_PFAS	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	19 Jul 2022	0356_SD004_220719	Normal	NSW_0356_PFASOMP_22	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	19 Jan 2023	0356_SD004_230119	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	

Table D3 - Historical Sedidment Analytical Results and Deviations

						PFAS Results and Deviations					
						PFOA	PFOA Deviations	PFOS	PFOS Deviations	PFHxS	PFHxS Deviations
						mg/kg		mg/kg		mg/kg	
LOR						0.0001		0.0001		0.0001	
Area	Location	Date	Field ID	Sample Type	Project ID						
On-base - Dochra Airfield	SD004	19 Jul 2023	0356_SD004_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	24 Jan 2024	0356_SD004_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0002		<0.0002	
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_SD004_240704	Normal	NSW_0356_PFASOMP_24	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_QC104_240704	Field_D	NSW_0356_PFASOMP_24	<0.0002		0.0009		<0.0002	
On-base - Dochra Airfield	SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.0001		0.0002		<0.0001	
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_SD004_250219	Normal	NSW_0356_PFASOMP_25	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_QC103_250219	Field_D	NSW_0356_PFASOMP_25	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD004	19 Feb 2025	0356_QC203_250219	Interlab_D	NSW_0356_PFASOMP_25	<0.0001		0.0001		<0.0001	
On-base - Dochra Airfield	SD005	12 Oct 2018	0356_SD005_181012	Normal	NSW_0356_PFAS	<0.0002		0.0004		<0.0002	
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_NSW1164_SD005_190118	Normal	NSW_0356_PFAS	<0.0002		0.0002		<0.0002	
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_SD_QC100_190118	Field_D	NSW_0356_PFAS	<0.0002		0.0004		<0.0002	
On-base - Dochra Airfield	SD005	18 Jan 2019	0356_SD_QC200_190118	Interlab_D	NSW_0356_PFAS	<0.0001		0.0004		<0.0001	
On-base - Dochra Airfield	SD005	05 Mar 2019	0356_SD005_190305	Normal	NSW_0356_PFAS	<0.0002		0.0002		<0.0002	
On-base - Dochra Airfield	SD005	18 Apr 2019	0356_SD005_190418	Normal	NSW_0356_PFAS	<0.0002		0.0004		<0.0002	
On-base - Dochra Airfield	SD005	18 Apr 2019	0356_QC241_SD_190418	Interlab_D	NSW_0356_PFAS	<0.0001		0.0004		<0.0001	
On-base - Dochra Airfield	SD005	18 Apr 2020	0356_SD005_200418	Normal	NSW_0356_PFAS	<0.0002		0.0002		<0.0002	
On-base - Dochra Airfield	SD005	19 Jul 2022	0356_SD005_220719	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0018		<0.0002	
On-base - Dochra Airfield	SD005	19 Jan 2023	0356_SD005_230119	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0008		<0.0002	
On-base - Dochra Airfield	SD005	19 Jul 2023	0356_SD005_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0009		<0.0002	
On-base - Dochra Airfield	SD005	24 Jan 2024	0356_SD005_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0008		<0.0002	
On-base - Dochra Airfield	SD005	04 Jul 2024	0356_SD005_240704	Normal	NSW_0356_PFASOMP_24	<0.0002		<0.0002		<0.0002	
On-base - Dochra Airfield	SD005	19 Feb 2025	0356_SD005_250219	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0008		<0.0002	
Off-base - North East	SD039	12 Apr 2019	0356_RESI_SD039_190412	Normal	NSW_0356_PFAS	<0.0002		0.0003		<0.0002	
Off-base - North East	SD039	12 Apr 2019	0356_QC240_190412	Interlab_D	NSW_0356_PFAS	0.0002		0.0019		<0.0001	
Off-base - North East	SD039	20 Apr 2020	0356_RESI_SD039_200420	Normal	NSW_0356_PFAS	0.0003		0.0036		<0.0002	
Off-base - North East	SD039	20 Jul 2022	0356_SD039_220720	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0038		<0.0002	
Off-base - North East	SD039	18 Jan 2023	0356_SD039_230118	Normal	NSW_0356_PFASOMP_23	<0.0010		0.0029		<0.0010	
Off-base - North East	SD039	18 Jul 2023	0356_SD039_230718	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0012		<0.0002	
Off-base - North East	SD039	24 Jan 2024	0356_SD039_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0036		<0.0002	
Off-base - North East	SD039	03 Jul 2024	0356_SD039_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.004		<0.0002	
Off-base - North East	SD039	18 Feb 2025	0356_SD039_250218	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0041		<0.0002	
Off-base - North East	SD046	17 Apr 2019	0356_RESI_SD041_190417	Normal	NSW_0356_PFAS	<0.0002		0.0034		<0.0002	
Off-base - North East	SD046	17 Apr 2019	0356_QC141_190417	Field_D	NSW_0356_PFAS	<0.0002		0.0028		<0.0002	
Off-base - North East	SD046	22 Apr 2020	0356_RESI_SD041_200422	Normal	NSW_0356_PFAS	<0.0002		0.0004		<0.0002	
Off-base - North East	SD046	22 Apr 2020	0356_QC203_200422	Interlab_D	NSW_0356_PFAS	<0.0002		0.0007		<0.0002	
Off-base - North East	SD046	20 Jul 2022	0356_SD046_220720	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0034		0.0002	
Off-base - North East	SD046	18 Jan 2023	0356_SD046_230118	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0016		<0.0002	
Off-base - North East	SD046	19 Jul 2023	0356_SD046_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	
Off-base - North East	SD046	24 Jan 2024	0356_SD046_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.007		<0.0002	
Off-base - North East	SD046	03 Jul 2024	0356_SD046_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0008		<0.0002	
Off-base - North East	SD046	19 Feb 2025	0356_SD046_250219	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0024		<0.0002	
Off-base - Singleton STP	SD047	17 Apr 2019	0356_RESI_SD042_190417	Normal	NSW_0356_PFAS	<0.0002		0.0047		<0.0002	
Off-base - Singleton STP	SD047	20 Jul 2022	0356_SD047_220720	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0075		<0.0002	
Off-base - Singleton STP	SD047	20 Jul 2022	0356_QC100_220720	Field_D	NSW_0356_PFASOMP_22	0.0002		0.0081		0.0002	
Off-base - Singleton STP	SD047	20 Jul 2022	0356_QC200_220720	Interlab_D	NSW_0356_PFASOMP_22	0.0002		0.0094		0.0002	
Off-base - Singleton STP	SD047	18 Jan 2023	0356_SD047_230118	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0048		0.0003	
Off-base - Singleton STP	SD047	19 Jul 2023	0356_SD047_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		<0.0002		<0.0002	
Off-base - Singleton STP	SD047	24 Jan 2024	0356_SD047_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0014		<0.0002	
Off-base - Singleton STP	SD047	03 Jul 2024	0356_SD047_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0004		<0.0002	
Off-base - Singleton STP	SD047	19 Feb 2025	0356_SD047_250219	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0004		<0.0002	
Off-base - Singleton STP	SD539	19 Oct 2020	0356_SD539_201019	Normal	NSW_0356_PFAS	<0.0002		0.0088		0.0008	
Off-base - Singleton STP	SD539	20 Jul 2022	0356_SD539_220720	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0016		<0.0002	
Off-base - Singleton STP	SD539	18 Jan 2023	0356_SD539_230118	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0112		0.0004	
Off-base - Singleton STP	SD539	19 Jul 2023	0356_SD539_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0052		0.0002	
Off-base - Singleton STP	SD539	24 Jan 2024	0356_SD539_240124	Normal	NSW_0356_PFASOMP_24	0.0002		0.0244		0.0053	
Off-base - Singleton STP	SD539	03 Jul 2024	0356_SD539_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0069		0.0004	
Off-base - Singleton STP	SD539	19 Feb 2025	0356_SD539_250219	Normal	NSW_0356_PFASOMP_25	0.0004	Exceedance of EPC (0.0003)	0.014	Exceedance of EPC (0.0128)	0.0029	Exceedance of EPC (0.0017)
Off-base - Singleton STP	SD563	19 Jul 2023	0356_SD563_230719	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0044		<0.0002	
Off-base - Singleton STP	SD563	24 Jan 2024	0356_SD563_240124	Normal	NSW_0356_PFASOMP_24	0.0002		0.0168		<0.0002	
Off-base - Singleton STP	SD563	03 Jul 2024	0356_SD563_240703	Normal	NSW_0356_PFASOMP_24	0.0029	New Significant Maximum, Exceedance of EPC (0.0009)	0.106	Exceedance of EPC (0.0128)	0.0012	
Off-base - Singleton STP	SD563	19 Feb 2025	0356_SD563_250219	Normal	NSW_0356_PFASOMP_25	0.0002		0.0241	Exceedance of EPC (0.0128)	0.0003	
Off-base - North West	SD052	11 Apr 2019	0356_RESI_SD035_190411	Normal	NSW_0356_PFAS	<0.0002		0.0012		0.0003	
Off-base - North West	SD052	11 Apr 2019	0356_QC140_190411	Field_D	NSW_0356_PFAS	<0.0002		0.0017		0.0003	
Off-base - North West	SD052	19 Jul 2022	0356_SD052_220719	Normal	NSW_0356_PFASOMP_22	<0.0002		0.0009		<0.0002	
Off-base - North West	SD052	18 Jan 2023	0356_SD052_230118	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0007		<0.0002	
Off-base - North West	SD052	18 Jul 2023	0356_SD052_230718	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0004		<0.0002	
Off-base - North West	SD052	24 Jan 2024	0356_SD052_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0004		<0.0002	
Off-base - North West	SD052	03 Jul 2024	0356_SD052_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0014		<0.0002	
Off-base - North West	SD052	18 Feb 2025	0356_SD052_250218	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0008		<0.0002	
Off-base - North West	SD080	16 Nov 2018	0356_RESI_SD013_181116	Normal	NSW_0356_PFAS	<0.0002		0.0135		0.0024	
Off-base - North West	SD080	20 Apr 2020	0356_RESI_SD013_200420	Normal	NSW_0356_PFAS	<0.0002		0.0111		0.0013	
Off-base - North West	SD080	20 Apr 2020	0356_QC103_200420	Field_D	NSW_0356_PFAS	<0.0002		0.0118		0.0014	
Off-base - North West	SD080	19 Jul 2022	0356_SD080_220719	Normal	NSW_0356_PFASOMP_22	<0.0002		0.001		<0.0002	
Off-base - North West	SD080	18 Jan 2023	0356_SD080_230118	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0189		0.0021	
Off-base - North West	SD080	18 Jul 2023	0356_SD080_230718	Normal	NSW_0356_PFASOMP_23	<0.0002		0.0235		0.0018	
Off-base - North West	SD080	24 Jan 2024	0356_SD080_240124	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0045		0.0003	
Off-base - North West	SD080	03 Jul 2024	0356_SD080_240703	Normal	NSW_0356_PFASOMP_24	<0.0002		0.0205	Exceedance of EPC (0.0128)	0.0014	
Off-base - North West	SD080	18 Feb 2025	0356_SD080_250218	Normal	NSW_0356_PFASOMP_25	<0.0002		0.0033		0.0003	

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
mg/kg = milligrams per kilogram
STP = Sewage Treatment Plant
PFAS OMP data in July 2024 - June 2025 monitoring period

Appendix E

SAQP

Prepared for
Department of Defence
ABN: 68 706 814 312

Sampling and Analysis Quality Plan

PFAS OMP - Singleton Military Area (Site ID 0356)

23-Jan-2024
Doc No. 20240123_OMP002_SMA_SAQP_Rev 6

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Sampling and Analysis Quality Plan

PFAS OMP - Singleton Military Area (Site ID 0356)

Client: Department of Defence

ABN: 68 706 814 312

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1.0 Introduction

1.1 Preamble

AECOM Australia Pty Ltd (AECOM) has prepared this Sampling and Analysis Quality Plan (SAQP) for the implementation of the per- and poly-fluoroalkyl substance (PFAS) Ongoing Monitoring Plan (OMP) at the Singleton Military Area (SMA) (the 'Site') (Site ID 0356) and the surrounding areas (refer to **Figure F1** in **Appendix A**).

This SAQP supports the OMP (Defence, 2021a) developed as part of the PFAS Management Area Plan (PMAP) (Defence, 2021b) for the Management Area.

The purpose of the Ongoing Monitoring Program is to collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport (migration pathways and rates) and transformation of PFAS at the Site and in the Management Area.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PMAP (Defence, 2021b) throughout the initial three-year implementation period.

1.2 SAQP Objectives

The objectives of this SAQP are to outline the proposed:

- scope of works in detail
- sampling methodology to be adopted
- quality assurance and quality control (QA/QC) measures to be adopted
- data collection and management requirements for the project.

1.3 Scope of Works

To meet the objectives, the following scope of works are proposed as per the OMP (Defence, 2021a):

- monitor the changes in the nature and extent (spatial and temporal) of PFAS impact in groundwater, surface water (including wastewater) and sediment pathways associated with Site sources of PFAS derived from the historical use of aqueous film forming foam (AFFF)
- monitor the changes in PFAS in groundwater and surface water from the Site, utilising newly obtained and historical data. These include:
  - key surface water drainage lines from the SMA, including Doughboy Hollow Creek, Emigrant Creek and Mudies Creek
  - groundwater in and near PFAS source areas on and along and near the northern boundary of the Cantonment to act as a sentinel system for PFAS migration across the Base boundary.
- collect data to further refine the understanding of the contribution of PFAS from the SMA to offsite surface water, including the Singleton Sewage Treatment Plant (STP), and groundwater
- monitor changes to the current understanding of risk
- provide supporting data for assessment of management actions outlined in the PMAP, where relevant.

1.4 Guidelines and Legislation

The SAQP has been developed with reference to the following guidelines and legislation:

- Australian and New Zealand Guidelines, 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

- Department of Defence, 2018. *Contamination Management Manual – Annex L Data Management*. August 2018, Amended June 2021.
- Department of Defence, 2022. *PFAS Investigation and Management, Guidance Document E Standard PFAS Analytical Suite*. June 2022.
- Department of Health, 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- FSANZ, 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- National Environment Protection Council (NEPC), 2013. *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- Standards Australia, 1998. AS/NZ 5667:1998 Water Quality – Sampling. Part 11: Guidance on sampling of groundwaters.

1.5 Previous investigations

Previous investigations of PFAS at the Site and surrounding areas have included a Detailed Site Investigation (DSI) and a DSI Addendum (AECOM, 2019 and 2021a) as well as a Human Health and Ecological Risk Assessment (HHERA) (AECOM, 2021b). These reports detailed the nature and extent of PFAS, as well as the associated risks pertaining to PFAS contamination from legacy use of AFFF.

The PMAP (Defence, 2021b) was subsequently developed and includes the overall purpose and requirements of the OMP.

Additionally, to date, three Sampling Event Factual Reports (AECOM, 2022, 2023a and 2023b) have been prepared under the OMP.

2.0 Site Setting

2.1 Site Description

The Site is located approximately 8 km south of the township of Singleton, in the vicinity of Newcastle, NSW. The Site comprises the Cantonment and the Singleton Training Area (STA).

The Site houses the School of Infantry, Joint Logistics Unit East (Hunter Valley), the Australian Army Infantry Museum, as well as Estate & Infrastructure Group SMA. Support activities undertaken primarily at the Site include vehicle maintenance, storage and distribution of fuels and equipment wash-down.

A fire station was operational at the Site between 1963 and 1994, and associated activities included historical firefighting training with AFFF and equipment maintenance and testing.

The STA is an approximately 15,000 hectare firing range located between the Cantonment (to the north), Brokenback Range (south), the Hunter Vineyards (east), and the Mount Thorley Mine area (west). The STA is comprised of a number of former and active ranges for weapons firing, vehicle training and explosives testing.

The Site, together with the Singleton STP located off-Site and the neighbouring properties to the north, northwest and northeast, form the 'Management Area'.

The PMAP (Defence, 2021b) describes the 'Management Area' as comprising of two distinct areas:

- the on-Site Management Area, which includes the SMA
- the off-Site Management Area, which includes the private properties to the northwest, north and northeast of the SMA (**Figure F1** in **Appendix A**).

The Site and surrounding areas are presented in **Figure F1** in **Appendix A**.

2.1.1 Regional Meteorology

The Bureau of Meteorology (BoM) at Singleton Military Defence Area (station number: 061430) has recorded the climate statistics on Site since 2017, presenting a record of approximately 7 years. The following is a summary of temperature and rainfall data from this station:

- Mean monthly maximum temperatures have varied from 16.7°C in July to 28.6°C in January.
- Mean rainfall at the Site is 713.6 mm per annum. The lowest recorded annual rainfall was 344.4 mm in 2019 and the highest annual rainfall was 1026.6 mm in 2021. Mean monthly rainfall is highest between October and March, averaging 87.92 mm per month, and lowest from May to July averaging 25.74 mm per month.

2.1.2 Topography and Geology

The Site and surrounding areas are located within the northern part of the Sydney Basin which is characterised by Permian and Triassic aged sedimentary rock. The lithology underlying the Site is composed of sandstone with some conglomerate, claystone, and shale. Some less prominent rocks present in the area include quartzose sandstone of the Hawkesbury Sandstone, siltstone, and tuff.

The soils within the low-lying areas of the Site consist primarily of alluvial soils, yellow and red podzolic soils. Towards the southern extent of the Site where elevation is higher, the soil profiles are thinner and are classified as shallow soils.

The Site is approximately 40 kilometres east of the Great Dividing Range and is dominated by moderate to gently sloping inclines and hills, with the foothills of the Brokenback Ranges erecting towards the southern extent of the Site.

Majority of the Off-Site Management Areas are located in the Central Lowlands along the Hunter River. This area is characterised by rolling hills and inclines on weak sedimentary rocks.

2.1.3 Hydrogeology

The hydrogeology of the Site can be summarised into four notable subunits.

- The **perched groundwater unit** is an unconfined discontinuous perched zone with the material flanking creeks. Water is present within the alluvium/colluvium flanking major water courses across the Site. Recharge is mainly from rainfall and the zone periodically dries out following extended periods of low rainfall.
- The **alluvial groundwater unit** presents groundwater in the low-lying part of the Site, within the alluvial sediments of the Hunter River floodplain. It is an unconfined aquifer and recharges predominantly from surface water. High yields of good quality water can be pumped from the aquifer making it a resource for beneficial uses including irrigation, agriculture and farming.
- In the weathered zone of the Permian bedrock lies the **shallow groundwater unit** where its presence is reliant on rainfall. The groundwater is perched above zones of low hydraulic conductivity such as clay or shale lenses within the bedrock. Leaching of salts from the bedrock creates poor quality groundwater in this zone.
- The **deep groundwater unit** is the dominant aquifer across the Site, and it forms the regional aquifer. Rock porosity highly dictates the flow of groundwater through this aquifer, followed by fractures and voids in the rock.

The previous investigations and monitoring have indicated groundwater (regional groundwater in shale bedrock and shallow in unconsolidated material above the shale bedrock) flows generally to the north and north east towards the Hunter River.

2.1.4 Vegetation

The vegetation on Site that has been identified as being critically endangered and in areas where exposure to PFAS is potential are as follows:

- Euphrasia arguta (annual herb)
- Prasophyllum sp. Wybong (terrestrial orchid).

2.1.5 Surface Water Drainage

The Site comprises several creek lines that ultimately drain north and east towards the Hunter River (located approximately 2 kilometres north of the Site boundary). The primary on-Site drainage lines include Mudies Creek and Emigrant Creek along the western and eastern boundaries of the Dochra Airfield, as well as a number of creeks emanating from the southern area of the Site. Doughboy Hollow Creek traverses the Site and runs to the north.

The off-Site Management Area comprises a number of water bodies including private dams and smaller drainage lines located on residential properties.

The previous investigations and monitoring observations indicated that the major surface water bodies were ephemeral, and flow in response to rainfall, with no base flow component connected to the groundwater. Additionally, there is potential for surface water to recharge groundwater in the area.

2.1.6 Current Surrounding Land Use

The current land uses of the surrounding off-Site areas are as follows:

- Grazing land and the floodplain areas of Whittingham and Glenridding, as well as a sewage treatment plant owned by Singleton Council are located to the north. The Whittingham Fire Station and Airstrip are located 1 kilometre and 1.3 kilometres northeast, respectively.
- The Pokolbin State Forest and the Brokenback Range are located to the south of the Site. Hunter Valley vineyards are located further southeast of the Site.
- A mix of rural and semirural land holdings including sparsely wooded open land and pastureland is located to the east. The Hunter River lies to the northeast, irrigating the croplands on the floodplains.
- Grazing land and irrigated cropland within the floodplains of the Hunter are located immediately west of the Site.

2.2 Conceptual Site Model

The Conceptual Site Model (CSM) is presented in the PMAP (Defence, 2021b) which summarises the linkages between PFAS sources, exposure pathways and receptors across the Management Area (**Figure F1** in **Appendix A**).

The PMAP (Defence, 2021b) was based on the DSI (AECOM, 2019), and then further refined in the DSI Addendum (AECOM, 2021a) and the HHERA (AECOM, 2021b).

The CSM identified PFAS source areas (where AFFF containing PFAS is understood to have been used in the past) and secondary PFAS source areas (where PFAS has migrated to a location where it creates a concentration of impact).

A number of potential PFAS exposures and risks to human and ecological health have been identified and include but are not limited to:

- Drinking groundwater with PFAS concentrations on and off-Site, that exceed the human health guideline values for drinking water.
- Incidental ingestion and dermal contact with rainwater containing elevated PFAS concentrations that was collected in tanks and used to irrigate gardens.
- Consumption of home-grown livestock produce (red meat, milk, eggs) at properties near the Site where sheep, cattle or home-grown backyard poultry have consumed water containing detectable PFAS or have grazed/roamed in areas irrigated or flooded with water containing detectable PFAS.
- Toxicity to terrestrial and aquatic organisms from direct exposure to PFAS in soil, sediment or surface water.
- PFAS uptake in plants and bioaccumulation and becomes part of food chain.

3.0 Data Quality Objectives

3.1 DQO Process

The amended National Environmental Protection Measure (NEPM, Schedule B [2]) Guideline on Site Characterisation (2013) specifies that the nature and quality of the data produced in an investigation will be determined by the Data Quality Objectives (DQOs). As referenced by the NEPM, the DQO process is detailed in the United States Environmental Protection Agency (US EPA) *Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4: EPA/240/B-06/001), February 2006.*

The US EPA defines the process as *'a strategic planning approach based on the Scientific Method that is used to prepare for a data collection activity. It provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when to collect samples, where to collect samples, the tolerable level of decision errors for the study, and how many samples to collect'.*

The process of establishing appropriate DQOs is defined according to the seven steps summarised in **Table 1** below:

Table 1 The seven steps in defining DQOs

Step	Data Quality Objective Step
1	**State the problem** – Define the problem that necessitates the study; identify the planning team, examine budget, schedule.
2	**Identify the goal of the study** – State how environmental data will be used in meeting objectives and solving the problem, identify study questions, define alternative outcomes.
3	**Identify information inputs** – Identify data and information needed to answer study questions.
4	**Define the boundaries of the study** – Specify the target population and characteristics of interest, define spatial and temporal limits, scale of inference.
5	**Develop the analytic approach** – Define the parameter of interest, specify the type of inference, and develop the logic for drawing conclusions from findings.
6	**Specify performance or acceptance criteria** – Develop performance criteria for new data being collected or acceptable criteria for existing data being considered for use.
7	**Develop the plan for obtaining data** – Select the resource-effective sampling and analysis plan that meets the performance criteria.

The approach adopted relative to the seven steps presented above is discussed below:

3.1.1 Step 1 – State the Problem

PFAS source areas at the Site are contributing to the presence of PFAS in surface water and to a limited extent in off-Site groundwater (AECOM, 2019, 2021a and 2021b).

Defence and State regulatory agencies require up-to-date data to assess the ongoing nature and extent of PFAS in the management area, assess the performance of implemented management actions and enable informed risk management decisions to protect human health and the environment.

The data collected by implementing this OMP will provide a periodic / longitudinal dataset that can be used to assist with assessment of temporal changes in PFAS concentrations in groundwater and surface water / sediment on- and off-Site as well how groundwater and surface water levels respond to natural fluctuations.

The OMP will continue for a nominal period of 3 years and cover the primary implementation period of the PMAP in which PMAP remediation actions (or other short-medium term actions) are likely to be completed. The need for ongoing monitoring following this period will be assessed with advice from NSW Government.

3.1.2 Step 2 – Identify the Goal of the Study

The goal of the study is to establish a systematic routine groundwater and surface water / sediment sampling and analysis program to:

- refine current understanding of the distribution of PFAS in groundwater and surface water/sediment in the Management Area
- monitor changes to PFAS distribution and variability due to management actions and seasonal variations
- collect additional data to inform future management actions.

This will allow decisions to be made regarding the assessment of risks to human and ecological receptors into the future (for example, updating the conceptual site model), and whether the OMP needs to be amended to reflect these updates.

3.1.3 Step 3 – Identify Information Inputs

To allow assessment of the data against the goal of the study listed in Step 2 above, the following inputs will be considered:

- PFAS results[1] from previous environmental investigations including the DSI (AECOM, 2019), DSI Addendum (AECOM, 2021a) and HHERA (AECOM, 2021b), and the residential sampling program
- groundwater and surface water flow regimes identified in the DSI (AECOM, 2019) and DSI Addendum (AECOM, 2021a)
- meteorological data including rainfall
- groundwater, surface water and sediment data collected and analysed for PFAS, as part of this OMP
- advances in laboratory analytical approaches and changes in regulatory requirements.

3.1.4 Step 4 – Define the Boundaries of the Study

The spatial and temporal boundaries that apply for data collection are detailed below and will influence the decision-making process for ongoing monitoring:

- the spatial boundary for data collection and decision making is limited to the on-Site and off-Site Management Area, however, is subject to change with input from the NSW Government.
- the sampling completed as part of the OMP will be limited to groundwater, surface water and sediment, at the frequencies defined in **Sections 4.2** and **4.3**.

The monitoring will be long term (initial period of 3 years) and potentially ongoing, based on review of the data and refinement of the OMP, as appropriate.

3.1.5 Step 5 – Develop the Analytical Approach

The decision rules can be defined as:

Analytical:

- analytical selection; all samples will be analysed for the extended PFAS suite
- analytical method selection for PFAS is based on achieving appropriate laboratory Limit of Reporting (LOR) in the various media to be analysed
- if the sample / laboratory quality assurance / quality control data are within the acceptable ranges, the data will be considered suitable for use.

Project:

- sample locations have been selected with the objective of monitoring PFAS trends (temporal and seasonal), providing early warning of changes in the migration of PFAS in the Management Area in

[1] Where permission to use the residential sampling data has been obtained from the relevant landowners

surface water and groundwater, and to assist with refinement of Management Area boundary over time, as required

- if PFAS concentrations are reported above the laboratory LOR, where it was previously <LOR, then it will be considered whether further assessment of the data will be required (refer to Table 4-3 of the OMP [Defence, 2021a])
- if the PFAS is reported at a concentration that is above drinking water guideline in groundwater, then it will be considered that further assessment is required and / or notification (refer to Table 4-3 of the OMP [Defence, 2021a])
- if the PFAS is reported at a concentration that is inside a trigger value or acceptable range, then it will be considered whether monitoring is continued or reduced, this assessment will be undertaken after two years of monitoring (refer to Table 4-3 of the OMP [Defence, 2021a]).

3.1.6 Step 6 – Specify Performance or Acceptance Criteria

Specific limits for the works included in the OMP are in accordance with the appropriate guidance made or endorsed by state and national regulations, appropriate indicators of data quality, and standard procedures for field sampling and handling.

This step also examines the certainty of conclusive statements based on the available new data collected. This should include the following points to quantify tolerable limits:

- a decision can be made based on a certainty assumption of 95% confidence in any given data set. A limit on the decision error will be 5% that a conclusive statement may be a false positive or false negative
- a decision error in the context of the decision rule presented above would lead to either underestimation or overestimation of the risk level associated with a particular sampling area
- sampling errors may occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the Site. To address this, the OMP outlines minimum numbers of samples proposed to be collected from each media
- as such, there may be limitations in the data if aspects of the OMP cannot be implemented. Some examples of this scenario include but are not limited to:
  - Proposed surface water or groundwater sample locations may be dry at the time of sampling
  - Proposed groundwater well locations are damaged or destroyed and therefore cannot be sampled
  - Proposed samples are not collected due to access being restricted to a given location.
- limitations in ability to acquire useful and representative information from the data collected. The data are proposed to be collected from multiple locations and sample media. Some examples of this scenario include:
  - Some of the data are proposed to be collected from landholder bores, which are not purpose-built for groundwater monitoring. In some cases, there is limited information on the bore construction, and the likely presence of dedicated pumps or windmills may prevent groundwater depths being accurately recorded while also preventing groundwater being sampled using low flow techniques.
- measurement errors can occur during sample collection, handling, preparation, analysis and data reduction. To address this the following measures are proposed:
  - Collection of sufficient sample mass to facilitate analysis reported to standard laboratory detections limits. Collection of insufficient sample mass may result in raised detection limits
  - Field staff to follow a standard procedure when collecting samples, including decontamination of tools, and use of appropriate sample containers and preservation methods
  - Laboratories to follow a standard procedure when preparing samples for analysis and undertaking analysis.

- laboratories to report quality assurance/ quality control data for comparison with the DQIs established for the OMP.

3.1.7 Step 7 – Optimise the Design for Obtaining Data

The methodology presented in this OMP is designed to meet the objectives described in **Section 1.2** and to achieve the nominated DQOs.

Optimisation of the data collection process will be achieved by:

- working closely with the analytical laboratories and sampling equipment suppliers to ensure that appropriate procedures and processes are developed and implemented prior to and during the fieldwork, to ensure that sample handling, and transport to and processing by the analytical laboratories is appropriate
- conducting sampling in accordance with the NEMP (HEPA 2020), with specific reference to Section 18.5 - *Considerations for Specific Environmental Media*
- basing the sampling upon a CSM developed using the information available at the implementation of the OMP. Updating the CSM as new data becomes available during the course of the implementation of the OMP, as required
- progressive review of the data and modification of sampling programs to optimise the value of data generated.

If the objectives of the OMP are not being met, the sampling design and approach will be reviewed and amended, as required.

The OMP (Defence, 2021a) provides guidance for preparing a SAQP that is required for each monitoring event, including scope of work, sampling methodologies, monitoring locations and PFAS assessment levels. The SAQP was developed in response to the principal study questions outlined in Step 2 and in line with the DQOs.

To maintain the integrity and reliability of data the following measures are to be adopted:

- field and analytical data are collected in accordance with the PFAS NEMP (HEPA, 2020) and the ASC NEPM (NEPC, 2013)
- field personnel should be trained and have sufficient experience to complete the fieldwork to an acceptable standard, as per the protocols outlined in the OMP / SAQP and following standards:
  - Department of Defence *Contamination Management Manual* (March 2018, Amended June, 2021)
  - Standards Australia (AS/NZS5667.11–1998) *Water Quality – Sampling, part 11: Guidance on sampling of groundwater*
- robust field and laboratory quality assurance/quality control protocols are adopted, including implementing suitable fieldwork procedures, and ensuring that sample handling, and transport to and processing by the analytical laboratories is appropriate
- use laboratories that are NATA accredited for PFAS analysis and ensure laboratory LORs are suitable to meet the relevant adopted assessment levels, where possible
- conducting sampling in accordance with AECOM's internal PFAS Sample Collection Guidance
- sampling conducted by suitably qualified and experienced field staff who have completed AECOM's internal PFAS 101 Training
- continually seeking to identify opportunities for refinement and optimisation of the OMP, including, but not limited to, identifying redundant locations that can be excluded from the monitoring program. This will be achieved through a review of the SAQP prior to each OMP sampling event across the three-year primary implementation period.

3.2 Assessment of Data Quality

The quality of data collected as part of the sampling will be assessed on a range of factors including:

- documentation and data completeness
- data quality – comparability, representativeness, precision and accuracy of the analytical data.

The project target for data completeness is to achieve 95% of data as suitable for use.

The acceptance criteria for DQIs for samples are provided in **Table 2**.

Table 2 Acceptance Criteria for Data Quality Indicators for Sample Analysis

Data Quality Indicators	Acceptance Criteria
Water and Sediment Samples	
Field Program	Sampling to be completed by suitably qualified and experienced field teams employing appropriate sampling procedures.
Rinsate Blanks	Rinsate blank samples are to be collected at a rate of one per day of sampling (where sampling equipment is reused) with concentrations of PFAS to be less than the laboratory LOR.
Field duplicates/Inter-lab duplicates	Field duplicates and inter-laboratory duplicates are to be collected and analysed at a rate of 10% (1 per 10 primary samples). The relative percentage difference (RPD) will be assessed as acceptable if less than or equal to 30% as per the NEPM Schedule B3. Where the results show greater than 30% difference a review of the cause will be conducted (NEPM, 2013). It is noted that RPDs that exceed this range may be considered acceptable where: • results are less than 10 times the LOR (no limit) • results are between 10 and 20 times the LOR and the RPD is less than 50% • heterogeneous materials are encountered.
Laboratory duplicates	The RPD will be assessed as acceptable based on the magnitude of the result: • 0-20% for results more than 20 times the LOR • 0-50% for results between 10 and 20 times the LOR • No limit for results between 0 and 10 times the LOR
Matrix spikes	Recoveries between 70-130% of the theoretical recovery or as nominated in the laboratory's Quality Control report.
Method blanks	Less than the laboratory LOR.
Laboratory control samples	Recoveries between the laboratory-specified range for each particular analyte/analytical suite.

4.0 Sampling Location Rationale & Sampling Methodology

4.1 OMP

The OMP (Defence, 2021a) presents an overview of specific monitoring works to be undertaken and provides the basis for the preparation of this SAQP. This scope of works presented in this SAQP is consistent with that detailed in the OMP (Defence, 2021a).

4.2 Proposed Schedule

The OMP (Defence, 2021a) outlines the monitoring for groundwater, surface water and sediment sampling from across the Site and Management Area to be undertaken on a biannual (six-monthly) basis for an initial period of 3 years with selected locations sampled either biannually, annually (once per year) or biennially (every second year). The monitoring also included sampling of the wastewater from the off-Site STP. The following summarises the schedule of monitoring for groundwater, surface water and sediment, together with the wastewater sample from the STP:

- **Groundwater** monitoring will include sampling over a period of three years comprising:
  - biannual monitoring of four well locations (MW102, MW104, MW109, MW110) at the northern Cantonment boundary for the first year. If results are comparable to those reported at these locations in the DSI (AECOM, 2019) and DSI Addendum (AECOM, 2021a), the monitoring frequency may revert to an annual frequency.
  - annual monitoring of wells at:
    - three on-Site locations (MW114, MW115 and MW118) at the northern Cantonment boundary; and
    - 12 off-Site locations (MW056, MW121, MW124, MW126, MW128, MW129, MW132, MW139, MW187D, MW187S, MW188D, MW188S) near the northern Cantonment boundary.
  - biennial monitoring of 11 well locations (MW048, MW049, MW050, MW052, MW008, MW011, MW167, MW059, MW063, MW071, MW073) at PFAS source areas including; the Defence National Storage and Distribution Centre (DNSDC) Compound, Former Fire Station, Helicopter Landing Ground and Dochra Airfield.
- **Surface water** monitoring will include biannual monitoring events at the 21 selected locations, scheduled to capture the wetter portion of the year (spring-summer) and drier portion of the year (autumn-winter).
- **Sediment** monitoring will include biannual monitoring events at the 20 selected locations.
- **Wastewater** effluent location at the off-Site STP will be sampled on a biannual basis to monitor changes in PFAS concentrations originally found in effluent discharges from the STP.

As required by the OMP (Defence, 2021a), at the completion of the initial three-year implementation period (which will include six rounds of monitoring, as part of the annual, biannual and biennial monitoring), the available data will be reviewed and evaluated (including comparability to the DSI results) to determine if the frequency of monitoring should increase or decrease to provide a better understanding of PFAS concentration fluctuations and subsequent changes to risk profile.

The proposed schedule of fieldwork across the initial three-year period is presented in **Table 3** below.

The locations to be monitored during the initial three-year implementation period (2022 – 2024) are listed in **Section 4.3**, together with the relevant OMP event under which they are planned to be sampled.

Table 3 Proposed Fieldwork Schedule over initial implementation period

Sampling Round No.	Year	Description of works	Proposed Schedule
1	1	Biennial (including biannual and annual) sampling of groundwater, surface water, wastewater and sediment	July 2022
2	1	Biannual sampling of groundwater, surface water, wastewater and sediment	January 2023
3	2	Annual (including biannual) sampling of groundwater, surface water, wastewater and sediment	July 2023
4	2	Biannual sampling of groundwater, surface water, wastewater and sediment	January 2024
5	3	Biennial (including biannual and annual) sampling of groundwater, surface water, wastewater and sediment	July 2024
6	3	Biannual sampling of groundwater, surface water, wastewater and sediment	January 2025

4.3 Sampling Locations

4.3.1 Groundwater Sampling Locations

The groundwater locations to be monitored during the initial three-year implementation period are provided in **Table 4** below and are presented on **Figure F2** in **Appendix A**.

Table 4 Groundwater Sample Locations

On/Off-Site	Area	Location ID	Historical Name	Easting	Northing	Top of Casing Elevation (m AHD)	Screen Interval (mbgl)	Sampling Frequency (Events)	Total # of sampling locations
On-Site	Northern Cantonment Boundary	MW102	GW02D	328357.02	6391396.84	46.82	12.5 – 15.5	Biannual, annual, biennial	7
		MW104	GW02S	328357.84	6391395.38	46.72	10 – 13	Biannual, annual, biennial	
		MW109	GW03D	328780.99	6391520.8	45.1	24.5 – 30	Biannual, annual, biennial	
		MW110	GW03S	328783.65	6391520.88	45.4	11.5 – 14	Biannual, annual, biennial	
		MW114	GW04D	329111.47	6391472.18	45.9	23.5 – 29.5	Annual, biennial	
		MW115	GW04S	329113.35	6391472.09	45.86	11 – 14	Annual, biennial	
		MW118	GW05S	329361.85	6391140.79	52.72	unknown	Annual, biennial	
	DNSDC Compound	MW048	CNN0039_GW01/CNN0039_GW001	328689.336	6390760.26	69.11	4 – 7	Biennial	4
		MW049	CNN0039_GW02/CNN0039_GW002	328714.567	6390735.258	69.76	2.7 – 8.7	Biennial	
		MW050	CNN0039_GW03	328696.53	6390962.71	64.4	12.5 – 16	Biennial	
		MW052	CNN0039_GW05	328737.46	6390684.35	72.05	0.8 – 3.8	Biennial	
	Former Fire Station	MW008	CNN0018_GW08	328347.54	6390164.94	74.1	11 – 14	Biennial	3
		MW011	CNN0018_GW02/CNN0018_GW002	328364.794	6390053.977	74.13	8.5 – 11.5	Biennial	
		MW167	CNN0230_GW01	328371.408	6390221.55	72.65	14.5 – 20.5	Biennial	
	Helicopter Landing Ground	MW059	HLG_GW03	327894.5	6389726.64	61.14	2 – 4	Biennial	1

On/Off-Site	Area	Location ID	Historical Name	Easting	Northing	Top of Casing Elevation (m AHD)	Screen Interval (mbgl)	Sampling Frequency (Events)	Total # of sampling locations
On-Site	Dochra Airfield	MW063	NSW1164_MW001D/ NSW1164_MW01D	332153.951	6386921.677	42.88	16 – 19	Biennial	3
		MW071	NSW1164_MW03D/NSW1164_MW003D	331897.4	6386665.65	47.87	23.5 – 29.5	Biennial	
		MW073	NSW1164_MW03S	331897.22	6386665.82	47.91	7 – 10	Biennial	
Off-Site	North of Site	**MW121**	GW06/GW06S	-	-	39.82	9.5 – 12.5	Annual, biennial	7
		MW126	GW08S	-	-	42.78	10.5 – 13.5	Annual, biennial	
		MW132	RESI_GW011	-	-	unknown	unknown	Annual, biennial	
		MW187D	MW09D	-	-	40.23	18.7 – 24.7	Annual, biennial	
		MW187S	MW09S	-	-	40.4	7 – 10	Annual, biennial	
		MW188D	MW10D	-	-	41.25	24 – 30	Annual, biennial	
		MW188S	MW10S	-	-	41.12	8 – 11	Annual, biennial	
	North-east of Site	**MW056**	GW12, MW12S	-	-	34.71	5.3 – 8.3	Annual, biennial	4
		MW124	GW07/GW07S	-	-	38.68	9.4 – 13.8	Annual, biennial	
		MW129	GW10S	-	-	37.95	9 – 12	Annual, biennial	
		MW139	RESI_GW013/RESI_GW13	-	-	unknown	unknown	Annual, biennial	
	North-west of Site	**MW128**	GW09S	-	-	44.08	9.2 – 12.2	Annual, biennial	1

Note: Historical Name, Eastings, Northings, Top of Casing Elevation and Screen Interval are sourced from the Defence Esdat database. Some coordinates are not displayed for privacy reasons.
Bold denotes a residential/private property sampling location.

4.3.2 Surface Water and Wastewater Sampling Locations

The surface water and wastewater locations to be monitored during the initial three-year implementation period are provided in **Table 5** below and are presented on **Figure F3** in **Appendix A**. All surface water and wastewater locations are to be monitored during Biannual, Annual and Biennial sampling events.

Table 5 Surface Water and Waste Water Sampling Locations

On/Off-Site	Area	Location ID	Historical Name	Easting	Northing	Total # of sampling locations
On-Site	Northern Cantonment Boundary (Sub-catchment A)	SW002	SW002	328729.259	6390973.807	5
		SW003	SW003	328859.222	6390001.096	
		SW026	SMA13_SW	328164.578	6390625.598	
		SW032	SW032	328530.667	6390352.491	
		SW034	SMA8_SW	328312.374	6391404.917	
	Northern Cantonment Boundary	SW115	-	328672.762	6391497.564	1
	Central Cantonment (Sub-catchment B)	SW028	SMA7_SW	327647.549	6389841.745	2
		SW555	-	329034.221	6388589.839	
	Southern Cantonment (Sub-catchment C)	SW040	SW040	327490.162	6388869.22	3
		SW116	-	329813.515	6389737.446	
		SW114	-	329385.819	6389104.052	
	Dochra Airfield	SW004	SW004	332770.588	6387095.299	2
		SW005	SW005	331911.32	6387184.041	
Off-Site	North of Site (Doughboy Hollow Creek Catchment)	**OTH006***	OTH006	-	-	6
		SW036	RESI_SW036	-	-	
		SW064	RESI_SW041	-	-	
		SW065	RESI_SW042	-	-	
		SW553	SW553	-	-	
		SW563	SW563	-	-	
	East of Site (Doughboy Hollow Creek Catchment)	**SW039**	RESI_SW039	-	-	1
	West of Site (Doughboy Hollow Creek)	**SW035**	RESI_SW035	-	-	1

Note: Historical Name, Eastings and Northings are sourced from the Defence Esdat database. Some coordinates are not displayed for privacy reasons. **Bold** denotes a residential/private property sampling location. * denotes waste water sampling location.

4.3.3 Sediment Sampling Locations

The sediment locations to be monitored during the initial three-year implementation period are provided in **Table 6** below and are presented on **Figure F4** in **Appendix A**. All sediment locations are to be monitored during Biannual, Annual and Biennial sampling events.

Table 6 Sediment Sampling Locations

On/Off-Site	Area	Location ID	Historical Name	Easting	Northing	Total
On-Site	Northern Cantonment (Sub-catchment A)	SD002	SD002	328729.259	6390973.807	5
		SD003	SD003	328863.483	6390010.018	
		SD032	SD032	328530.667	6390352.491	
		SD053	SMA13_SD	328164.578	6390625.598	
		SD065	SMA8_SD	328320.652	6391418.74	
	Northern Cantonment Boundary	SD115	-	328672.762	6391497.564	1
	Central Cantonment (Sub-catchment B)	SD055	SMA7_SD	327647.549	6389841.745	2
		SD555	-	329034.221	6388589.839	
	Southern Cantonment (Sub-catchment C)	SD040	SD040	327490.162	6388869.22	3
		SD116	SD116	329813.515	6389737.446	
		SD114	-	329385.819	6389104.052	
	Dochra Airfield	SD004	SD004	332768.77	6387094.72	2
		SD005	SD005	331936.67	6387252.51	
Off-Site	North of Site	**SD046**	RESI_SD041	-	-	5
		SD047	RESI_SD042	-	-	
		SD080	RESI_SD013	-	-	
		SD539	SD539	-	-	
		SD563	SD563	-	-	
	East of Site	**SD039**	RESI_SD039	-	-	1
	West of Site	**SD052**	RESI_SD035	-	-	1

Note: Historical Name, Eastings and Northings are sourced from the Defence Esdat database. Some coordinates are not displayed for privacy reasons. **Bold** denotes a residential/private property sampling location

4.4 Sample Collection and Handling

4.4.1 Sampling Methodology

The sampling methodology for each media is presented in **Table 7**.

Table 7 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater will be measured in each monitoring well prior to collection of groundwater samples. A comprehensive gauging round of all locations being sampled during an event will be conducted to enable groundwater contours to be developed.
Groundwater Sample Collection Methodology	**Groundwater Monitoring Wells** Groundwater samples will be collected from monitoring wells using a no-purge methodology with HydraSleeves™ which will be installed within the screened interval of the wells a minimum of 4 to 24 hours prior to sampling for the initial sampling round or when necessary to re-deploy. Care should be taken to avoid placing the base of the HydraSleeves™ at the base of the monitoring well, where a build-up of sediment may be present. The installation depth of the HydraSleeves™ is to be recorded (generally as HydraSleeve™ collar depth in mbTOC). HydraSleeves™ are to be installed / deployed in monitoring wells for a minimum of 4 hours prior to sampling, when deployed with bottom weights only, and for a minimum of 24 hours prior to sampling, when deployed with both top and bottom weights, to allow re-stabilisation of the well following disturbance, and if applicable, for the top weight to compress. Following sampling, field parameters are recorded ex-situ, from any excess water available in the HydraSleeve™. In the event that a HydraSleeve™ fails to deploy or has been removed inadvertently (i.e. by non-OMP project), the sample will be collected using a dedicated disposable high-density polyethylene (HDPE) bailer, if time or access constraints do not permit re-deployment of the HydraSleeve™ and subsequent sampling in the same sampling event. When sampling with a bailer, a minimum of three well volumes should be purged and purging should be continued until stabilisation of water quality parameters (to be collected continuously ex-situ) is achieved. If recharge is insufficient during purging, care should be taken to avoid purging the well dry and collecting the sample when reasonable to do so. Once sampling is completed, a new HydraSleeve™ will be deployed at the screened interval depth (consistent with the previous round) at each location in preparation for the next scheduled sampling round, where practicable. HydraSleeve™ sampling will be completed in accordance with the manufacturer's guidance. **Residential/Private Bores** Bore water samples will be collected by placing the laboratory provided sample bottle beneath the tap outlet and the tap slowly opened to collect the "first flush" of water.

Item	Details
Surface water Sample Collection Methodology	Surface water samples will be collected in accordance with the ASC NEPM (NEPC, 2013) and PFAS NEMP (HEPA, 2020). Samples will be collected from either mid-way through the water column or approximately 0.5 m below the surface (if possible) using a 'grab' sample method, without disturbing the bottom of the surface water body and without capturing any surface film, to minimise collection of sediment, or floating materials in the samples. At each location, a new, laboratory supplied container should be lowered into the water with the cap immediately applied once the container is full. Where sampling points cannot be accessed safely, surface water samples will be collected using a sampling pole. A description of each sampling location will be recorded (including physical setting, flow observations, presence of sheen or foam etc.).
Effluent Wastewater Sample Collection Methodology	Sample OTH006 will be collected from the in-flow effluent wastewater pipe beneath the STP pump house. The sample will be collected using a dedicated disposable bailer lowered through an access hatch in the base of the pump house. The sample will be collected directly into a new, laboratory supplied container with the cap immediately applied once the container is full. A description of the sampling location will be recorded (including physical setting, flow observations, presence of sheen of foam etc).
Sediment Sample Collection Methodology	Sediment samples will be collected in accordance with the ASC NEPM (NEPC, 2013) and PFAS NEMP (HEPA, 2020). Sediment samples are to be collected from a depth representative of potentially deposited sediments and collected from within the water body, if possible. Where embankment stability and surface water depth permits, sediment samples will be collected using a hand trowel to a maximum depth of 0.3 m below the sediment surface. Where access to sediment is restricted by bank instability or the presence of surface water, samples will be collected using a hand auger or Dormer Piston Sediment Sampler. A new laboratory supplied container will be used at each location for collection of samples, and any reusable sampling equipment utilised will be de-contaminated between locations. Description of each sampling location and the sample material will be recorded.
QA/QC Samples to be Collected	Field QA/QC samples are to include intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. blind and split duplicates), as well as rinsate blank samples, as specified in **Section 4.12**. Extra sample volume will be collected to enable the laboratory to complete their internal QA/QC analysis. An attempt to reduce potential heterogeneity in the sample media matrix will be undertaken by dividing the sample collected between primary and intra-laboratory jars or bottles during sampling.

Item	Details
Field Parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality will be recorded for all groundwater and surface water samples, including: • physical indicators such as the presence (and approximate proportion) of suspended solids, colour • the presence/absence and nature of odours and the presence/absence of slicks or sheens on water. Groundwater field parameters are to be collected ex-situ using excess water within the HydraSleeve™ (or bailer) following sample collection. Surface water field parameters are to be collected ex-situ using a dedicated cup (not used for sampling).
Sample Analysis	All primary samples will be submitted for PFAS extended suite using the standard levels of detection.

4.4.2 Decontamination of sampling equipment

To avoid cross-contamination between samples and sample locations, all reusable sampling equipment, such as interface probe and trowel, will be de-contaminated between locations. The proposed method of decontamination is summarised below:

- Preliminary wash and scrub with tap water, after each sampling location.
- Wash using Liquinox®.
- Rinsed with tap water.
- Rinsed with deionised water (supplied by the laboratory).

Clean, disposable nitrile gloves will be worn and replaced between each sample.

4.4.3 Sample Handling and Transport to Laboratory

All samples will be placed on ice in eskies immediately after sampling, and kept, if possible, at low temperatures (<6°C) during transit to the laboratory, in accordance with ASC NEPM (NEPC, 2013).

Samples will be transported directly to the laboratory for analytical testing under standard CoC procedures. Primary and associated duplicate QA/QC samples will be analysed by Australian Laboratory Services (ALS) in Sydney. The inter-laboratory duplicate samples will be analysed by Envirolab Services (Envirolab) in Sydney.

4.5 Calibration

The water quality meter calibration will be tested each day via a “bump test” prior to the commencement of field activities with relevant solutions, including pH, EC and ORP.

The calibration will be in accordance with manufacturers’ instructions or NATA publication “General Requirements for Registration: Supplementary Requirement: Chemical Testing (NATA 1993) and Technical Note No. 19 (NATA 1994)”. Where satisfactory calibration cannot be achieved, the water quality data will not be used for interpretive purposes.

Calibration details will be recorded on field sheets and included in the Sampling Event Factual Reports for each sampling round.

4.6 Logistics

The laboratory sample containers will be shipped from the laboratory to the AECOM office in Newcastle prior to the commencement of fieldwork.

All primary samples will be transported to the laboratory by field staff or by an ALS supplied courier, at the completion of fieldwork. All inter-laboratory duplicate samples will be couriered directly to the secondary laboratory under a separate COC for analysis.

4.7 Analytical Suite and Laboratory Analysis Methods

4.7.1 Laboratory NATA Accreditation Details

The laboratory is required to use NATA accredited methods based on NEPM, US EPA, Table B 15 of the US Department of Defence/Department of Energy (US DOD/DoE) and American Society for Testing and Materials (ASTM) methods as appropriate.

The primary and secondary laboratories selected for this program are ALS (NATA Accreditation Number 825) and Envirolab (NATA Accreditation Number 2901).

4.7.2 Analytical Schedule

All media sampled will be analysed for the extended PFAS suite in accordance with the Defence (2021) *Standard PFAS Analytical Suite* Guidance Document (**Appendix C**).

The current laboratory limits of reporting (LOR) for the primary laboratory are described in **Table 8** below.

Table 8 Laboratory Limits of Reporting

Sample Media	Parameter	Technique/Method Reference	LOR
Water	Extended PFAS Suite (Standard)	LCMS	0.01 – 0.1 µg/L
Sediment	Extended PFAS Suite (Standard)	LCMS	0.0002 – 0.001 mg/kg

LCMS = Liquid chromatography mass spectrometry

4.7.3 Validation of Analytical Results

Validation of analytical results may be required in the form of re-analysis by the reporting laboratory or through re-sampling and analysis, to confirm original results.

The requirement for re-sampling and/or re-analysis will be determined in consultation with Defence and will generally apply to results that are first-time detections of PFAS in water matrices, new exceedances of human health guidelines or consecutive increases of PFAS concentrations in sediments.

4.8 Sample Nomenclature

In order to meet Defence data management requirements, a consistent sample nomenclature has been adopted for the Program. All primary samples will be labelled using the following naming convention:

PPPP_XX000_ZZZ_YYMMDD

[property ID][type of sample][THREE DIGIT sample number]_[top of sample depth]_[yearmonthday]

e.g. 0356_MW001_220201

Location types and codes are prescribed by the Defence Contamination Management Manual, Annex L Data Management (2018, Amended 2021) and the Site's investigation history.

Location types relevant to this SAQP include:

- MW = monitoring well
- OTH = other (e.g., wastewater)
- SW = surface water
- SD = sediment

QA/QC samples will be labelled in accordance with the following convention:

- Blind duplicate (intra-laboratory duplicate): PPPP_QC1XX_YYMMDD

- Split duplicate (inter-laboratory duplicate): PPPP_QC2XX_YYMMDD
- Rinsate blank: PPPP_QC3XX_YYMMDD.

4.9 Defence Esdat Requirements

Defence has contracted Earth Science Information Systems (EScIS), to provide contamination data management services through a cloud instance of its Esdat product.

All field and laboratory data collected by AECOM will be uploaded, stored and managed in Defence's Environmental Data Management System (EDMS (Esdat)) in accordance with Section 6 of Annex L to the Defence Contamination Management Manual. AECOM will refer to historical investigation data to ensure consistent location codes are used to enable analysis of data trends. Where required under Annex L, non-compliant location codes will be resolved under direction from Defence.

AECOM will ensure that electronic data deliverables (EDDs) from the laboratory include required information for automatic upload into the EDMS, such as including the correct Project ID in Esdat files and including the Defence Esdat auto-upload email address (DERP.LabReports@esdat.com.au) in the laboratory report recipient list.

4.10 Adopted Screening Criteria

Adopted screening criteria references national guidance in the form of the PFAS National Environmental Management Plan, Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance.

At the time of preparing this SAQP, a number of relevant guidance documents were in circulation in Australia including:

- PFAS National Environmental Management Plan (NEMP) Version 2.0, Heads of EPA (HEPA) Australia and New Zealand. January 2020 (HEPA, 2020)
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017 (FSANZ, 2017)
- National Health and Medical Research Council (NHMRC), 2019. Guidance on PFAS in Recreational Water. August 2019 (NHMRC, 2019)
- National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1, as amended in 2013 (ASC NEPM, 2013)

The screening criteria adopted to assess the data generated as part of this SAQP are presented in **Table 9** and **Table 10** below, for human and ecological receptors, respectively. Note that the HEPA NEMP 2.0 (2020) does not provide screening criteria for PFAS in sediments.

Table 9 PFAS Adopted Screening Criteria – Human Receptors

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater	Drinking water	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP (HEPA, 2020) are from DoH (2017) which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the tolerable daily intake (TDI) for PFOS and PFOA from FSANZ (2017) and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG, 2022) to determine drinking water values. *Results from all groundwater locations will be compared to these criteria.*
		PFOA	0.56 µg/L	

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted by the HEPA NEMP 2.0 (2020). *Results from all surface water locations will be compared to these criteria.*
		PFOA	10 µg/L	

Table 10 PFAS Adopted Screening Criteria – Ecological Receptors

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2020) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% species protection level has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results will be compared to these criteria.*
		PFOA	19 µg/L	

4.11 Waste Management

Due to the proposed “no purge” sampling methodology adopted for the majority of the groundwater monitoring locations and the grab samples from the designated surface water sampling locations, it is not anticipated that significant volumes of liquid waste would be generated that would require onsite management and disposal.

All consumables (i.e. HydraSleeves™, general rubbish, etc.) will be bagged and placed in on-Site general waste bins for disposal.

4.12 Field Quality Assurance/Quality Control Sampling

4.12.1 Intra-laboratory and Inter-laboratory Duplicate Samples

Intra-laboratory (blind) duplicate samples and inter-laboratory (split) duplicate samples will be collected and analysed at a minimum frequency of 1 in 10 primary samples, in accordance with the quality control and quality assurance requirements outlined in OMP (Defence, 2021a) and HEPA (2020).

4.12.2 Rinsate Samples

Rinsate blank samples will be collected and analysed at a minimum frequency of 1 per day of fieldworks, in accordance with the quality control and quality assurance requirements outlined in OMP (Defence, 2021a) and HEPA (2020).

Rinsate blanks are to be collected by pouring laboratory supplied deionised water over decontaminated sampling equipment that will be re-used (e.g. interface probe, trowel).

4.13 Fieldwork Documentation

4.13.1 Field Notes

Field notes will be maintained to record all field sampling events and include observations made at each sample location. Field notes will include general site setting, location information, and information specific to the sample media, as follows:

- Weather conditions, and visual or olfactory conditions at the location
- Location coordinates and means of access, and any changes from previous access to a specific location
- Groundwater samples – the observed characteristics of the sample (e.g. colour, turbidity, presence/absence and nature of odours, presence/absence of slicks or sheens) and measured field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded. Condition of monitoring wells and gauging details will also be recorded.
- Surface water samples – the observed characteristics of the sample (e.g. colour, turbidity, presence/absence and nature of odours, presence/absence of slicks or sheens) and field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded. Additionally, a description of each surface water sampling location will be recorded, such as indicating the waterbody type (lake, stream, etc.), presence/absence of water flow, and waterbody width.
- Wastewater samples – the observed characteristics of the sample (e.g. colour, turbidity, presence/absence and nature of odours, presence/absence of slicks or sheens) will be recorded.
- The quality control (e.g. duplicate and inter-laboratory duplicate) sample details be recorded.

AECOM's tablet-based Environmental Data Collection and Analysis ('EDCA') tool (or equivalent) may be utilised by field staff to capture consistent field data based on project specific requirements, minimise potential data transcription errors, allow on-the-spot identification of potentially erroneous data in comparison to historical data and facilitate efficient data transfer to multiple data systems including Esdat.

4.13.2 Sample Labels

Sample containers will be labelled, as a minimum, with the following information:

- AECOM project number
- Name of sampler
- Sample ID
- Date of sample collection.

An indelible felt pen will be used for labelling, to ensure that the lettering is not erased during transit to the laboratory. Sample containers that are sent to the primary laboratory, ALS, will also be scanned into the laboratory's custom-built mobile app (by scanning the barcode applied to each laboratory-supplied container) for streamlined labelling and COC creation and to ensure compliant sample IDs are used in the field.

4.13.3 Chain of Custody Forms

A COC form will be completed, documenting the sample identification number and analytes. The COC documents the chain of events from sample collection to delivery at the laboratory and provides a

traceable account of sample handling. The form will be signed by both the sample collector and the receiving laboratory, and will include the following information:

- job number
- date and time of sample collection
- sample IDs
- type of containers
- name of sampler
- laboratory to be used
- analyses required
- any comments
- signatures of the sampler and laboratory receiver.

In the event that additional samples are collected during the field investigations due to observations made by the field team, (i.e. samples not proposed in this SAQP), Defence will be provided the rationale for collection of those samples and proposed laboratory analyses. Defence approval will be sought to include these samples on the COC and to dispatch these samples to the laboratory.

Upon receipt of the original documents accompanying the samples at the laboratory, the laboratory will provide a sample receipt document (noting the temperature of samples upon receipt, analyses required and any non-conformances) and return the signed COC form and sample receipt notification (SRN) to confirm analyses to be performed and the due date for the analytical results.

4.14 Reporting

4.14.1 Sampling Event Factual Report

A Sampling Event Factual Report will be prepared and submitted to Defence following the completion of each sampling event. The Sampling Event Factual Report will include:

- details of the scope completed
- a description of the sampling methodologies used
- identification of any components of the scope that could not be completed
- a summary of field observations (e.g. any visual or olfactory observations that may indicate impacts to surface water, waste or groundwater) and water quality parameter measurements
- evaluation of the applicability of adopted assessment levels
- a presentation of the analysis results in a table that includes comparisons with PFAS guidelines
- a presentation of groundwater levels for the event on a figure with inferred contours and inferred groundwater flow direction
- review of the suitability of the data for assessment purposes (QA/QC evaluation)
- inclusion of the following information as attachments:
    - Field data including field water quality parameter and gauging measurements
    - Chain of custody forms
    - Laboratory analytical certificates
    - Equipment calibration certificates.

The Sampling Event Factual Report will be provided to Defence no later than four weeks after completion of the field component. Defence will be informed in the case of delays in laboratory results.

4.14.2 Ongoing Monitoring Report

An Ongoing Monitoring Report (OMR) will be prepared periodically and submitted to Defence. The OMR will include:

- Evidence of compliance with the requirements of the SAQP and meeting stated objectives of the OMP (Defence, 2021a).
- Details of the scope completed, sampling methodologies used, and identification of any components of the scope that could not be completed.
- A summary of any changes to the monitoring network condition that may affect data integrity, or require rectification works, and recommendations for repair, replacement of decommissioning of a location.
- Relevant figures depicting sampling locations and site-specific hydrogeological features.
- Laboratory results and analysis including comparison with the adopted screening criteria.
- Assessment and commentary on appropriate QA/QC procedures.
- Data interpretation, including trends in PFAS concentrations in various media, trends in groundwater gradient and flow directions.
- Assessment of statistically based trends that may inform decision making when it comes to the revision of the OMP (Defence, 2021a) including whether a review of the Conceptual Site Model is required or whether the risk profile has changed overall, or for any specific location at the Site, and a recommendation as to whether this should trigger an OMP and/or PMAP review, or other action.
- Inclusion of the following information as attachments:
  - Sampling Event Factual Reports completed during the OMR period which include:
    - Sample location figures
    - Field data including field water quality parameter and gauging measurements
    - Chain of custody forms
    - Laboratory analytical certificates
    - Equipment calibration certificates

4.15 Deviations from OMP

While the scope of works and methodology described in this SAQP are generally consistent with that presented in the OMP (Defence, 2021a), a number of points of deviation are noted (refer to **Table 11** below).

Table 11 Deviations from OMP

No.	Description	Rationale
1	Monthly Sampling	The OMP (Defence, 2021a) lists two surface water locations as proposed for monthly sampling for a minimum of 12 months. AECOM has sought clarification on the sampling frequency. It was confirmed by Defence via email on 3 March 2022 that monthly sampling is not required as part of the OMP.
2	Groundwater Sampling Methodology	The OMP (Defence, 2021a) specifies that groundwater samples are to be collected using no-purge methodology with HydraSleeves™. In the event that a HydraSleeve™ fails to deploy or has been removed inadvertently (i.e. by non-OMP project), the sample will be collected using a dedicated disposable bailer.

No.	Description	Rationale
3	Sediment Sampling Methodology	The OMP (Defence, 2021a) specifies that sediment samples are to be collected using a hand auger from the base of the drain where it is safe to do so. In order to ensure consistency and comparability across the Defence OMP Program, sediment samples are to be collected using a hand trowel, where safe to do so.
4	Human Health Surface Water Screening Criteria	The OMP (Defence, 2021a) specifies that results from surface water locations be screened against the human health screening criteria for drinking water of 0.07 µg/L for PFOS+PFHxS and 0.56 µg/L for PFOA. Based on a review of the CSM and water use information presented in the PMAP (Defence, 2021b), the screening of surface water results against the HEPA (2020) drinking water criteria is not applicable given that the source>pathway>receptor is considered to be incomplete. Therefore, surface water results will only be screened against recreational use human health screening criteria and ecological screening criteria.
5	Human Health Groundwater Screening Criteria	The OMP (Defence, 2021a) specifies that results from groundwater locations be screened against the human health screening criteria for recreational use of water of 2 µg/L for PFOS+PFHxS and 10 µg/L for PFOS. Based on a review of the CSM and water use information presented in the PMAP (Defence, 2021b), the screening of groundwater results against the HEPA (2020) recreational use criteria is not applicable given that the source> pathway>receptor is considered to be incomplete. Therefore, groundwater results will be screened against drinking water human health screening criteria and ecological screening criteria only.
6	Rinsate frequency	The OMP (Defence, 2021a) states that rinsate samples will be collected at a rate of one sample per fieldwork day or at least one rinsate sampler per ten primary samples (whichever rate is lower) by pouring laboratory supplied deionised water over the decontaminated sampling equipment. To align with other OMPs in the NSW & JBT Region, rinsates are proposed to be collected at a rate of one per day of sampling (per media) where equipment is decontaminated and reused between sampling locations using laboratory supplied deionised water.
7	Major Cations and Anions Analysis	On 27 January 2021, Defence instructed AECOM to discontinue the analysis of samples for non-PFAS analytes unless it was specifically requested by Defence. As a result, AECOM will not analyse OMP groundwater and surface water samples collected from the Site for anions and major cations.

No.	Description	Rationale
8	Removal of MW012	During the initial OMP sampling event in July 2022, AECOM noted that monitoring well MW012 appeared to have been destroyed during the demolition of the former fire station. Given that the remaining monitoring well network provides sufficient coverage of groundwater in this area, it was recommended that this location be removed from the OMP scope of works.
9	Renaming of co-located sediment and surface water samples	Co-located surface water and sediment location SW113 / SD113 was incorrectly named in the OMP (Defence, 2021a) as an existing entry for SD113 was identified in Defence Esdat. To mitigate the duplication of location codes in Defence Esdat, AECOM has renamed this location SW116 and SD116.
10	Replacement of SD540 and SW554 with SD563 and SW563	Co-located surface water and sediment location SW554 and SD540 were not able to be accessed during the January 2023 sampling event. Additionally, upon further review, the location was not within Singleton Council owned land as originally thought, and the owner of the parcel of land could not be determined. A new, replacement co-located surface water and sediment location, SW563 and SD563, has since been identified, which is further north of the original location, targeting the same body of water and within Singleton Council owned land.

5.0 References

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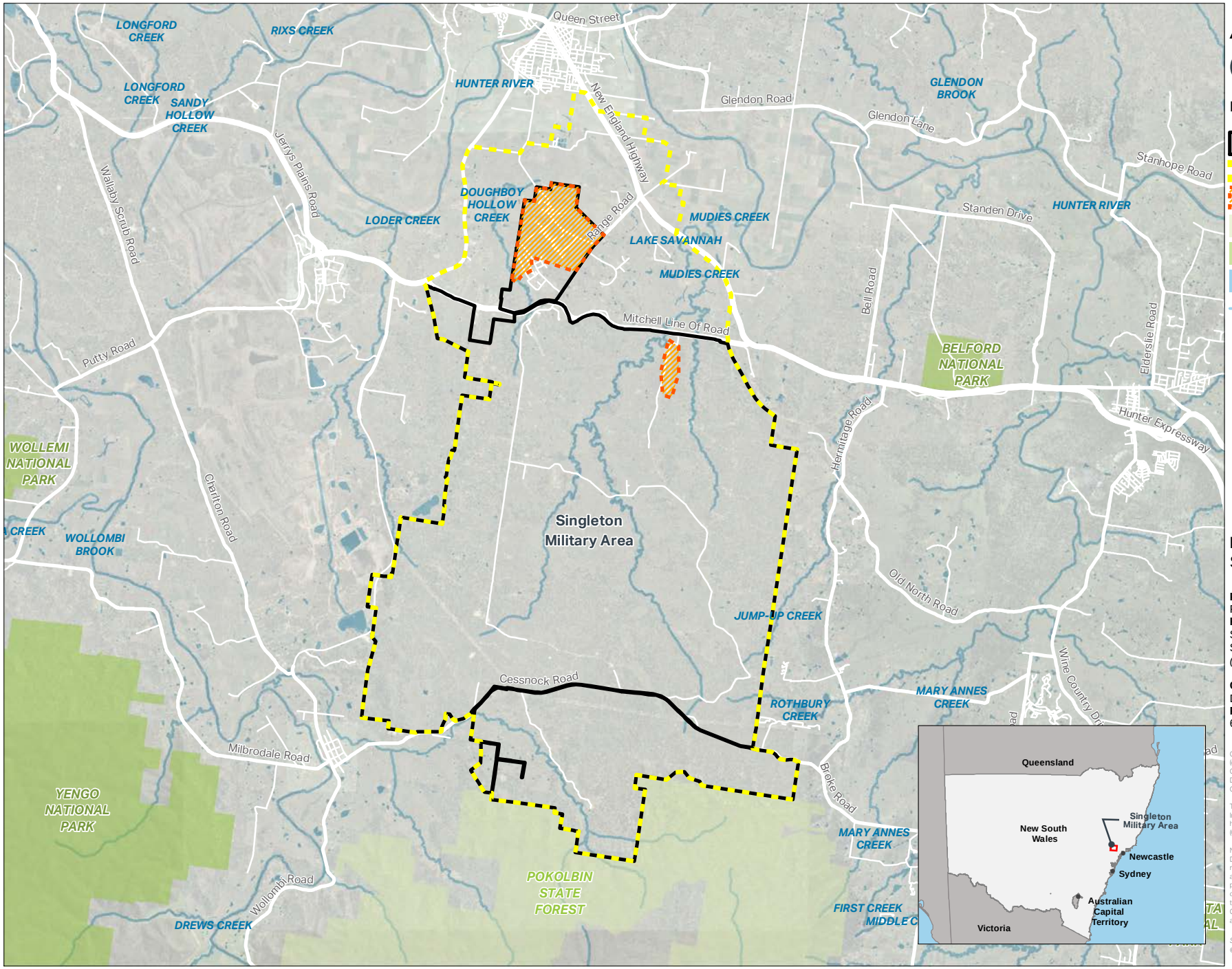
National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.

Standards Australia (AS 4482.1-2005) *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*

Standards Australia 1998. AS/NZ 5667:1998 *Water quality – sampling.*

Appendix A

Figures



AECOM

N

0 1.5 3 km

Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- State Forest
- NPWS Reserve
- Waterbody
- Watercourse

FIGURE F1:
SITE LAYOUT

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
Singleton Military Area
(Site ID 0356)

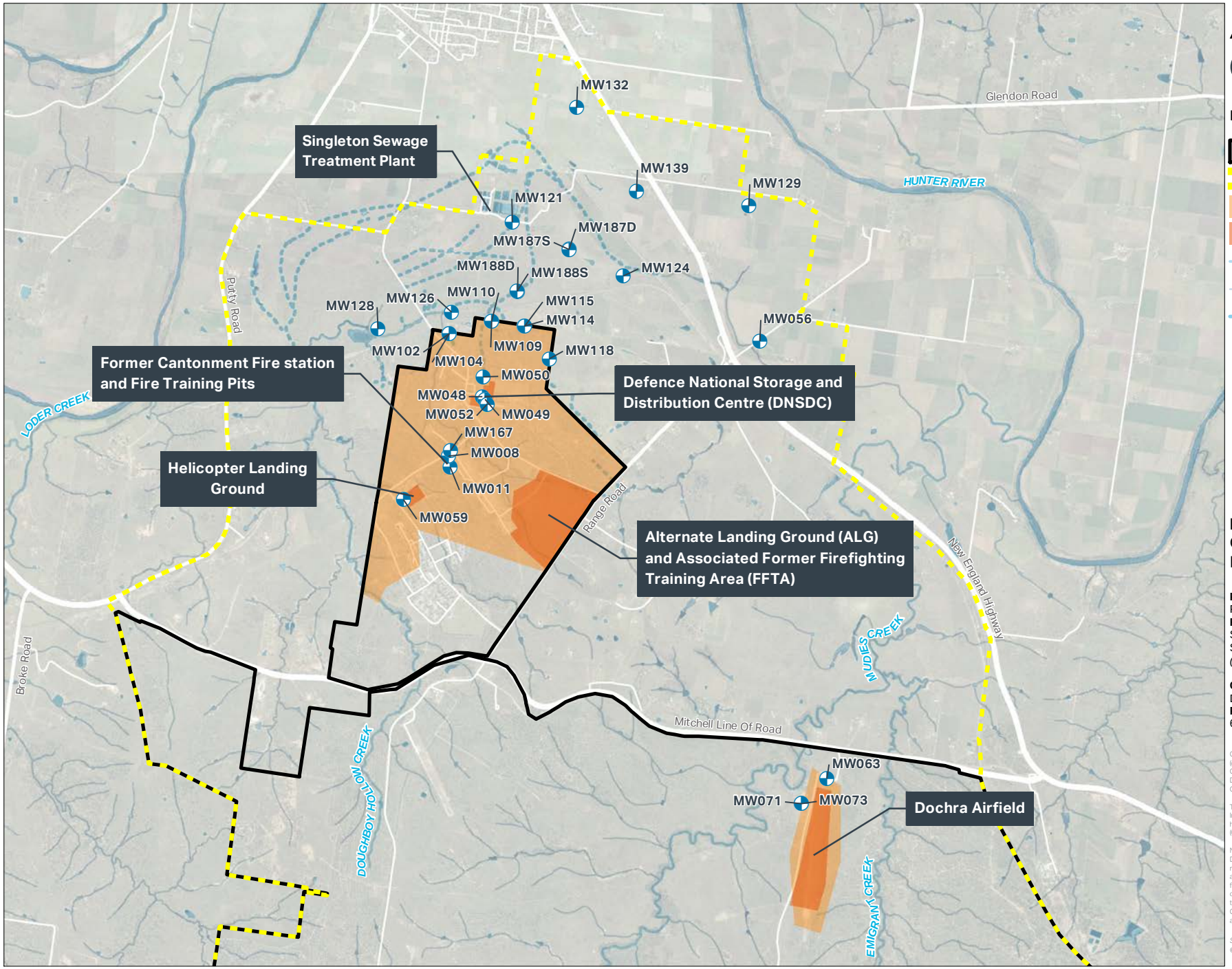
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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AECOM

N

0 0.5 1 km

Legend

- Site Boundary
- Former Investigation
- On-site Management
- PFAS Source Areas
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Groundwater Sample Location

FIGURE F2:
GROUNDWATER SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
Singleton Military Area
(Site ID 0356)

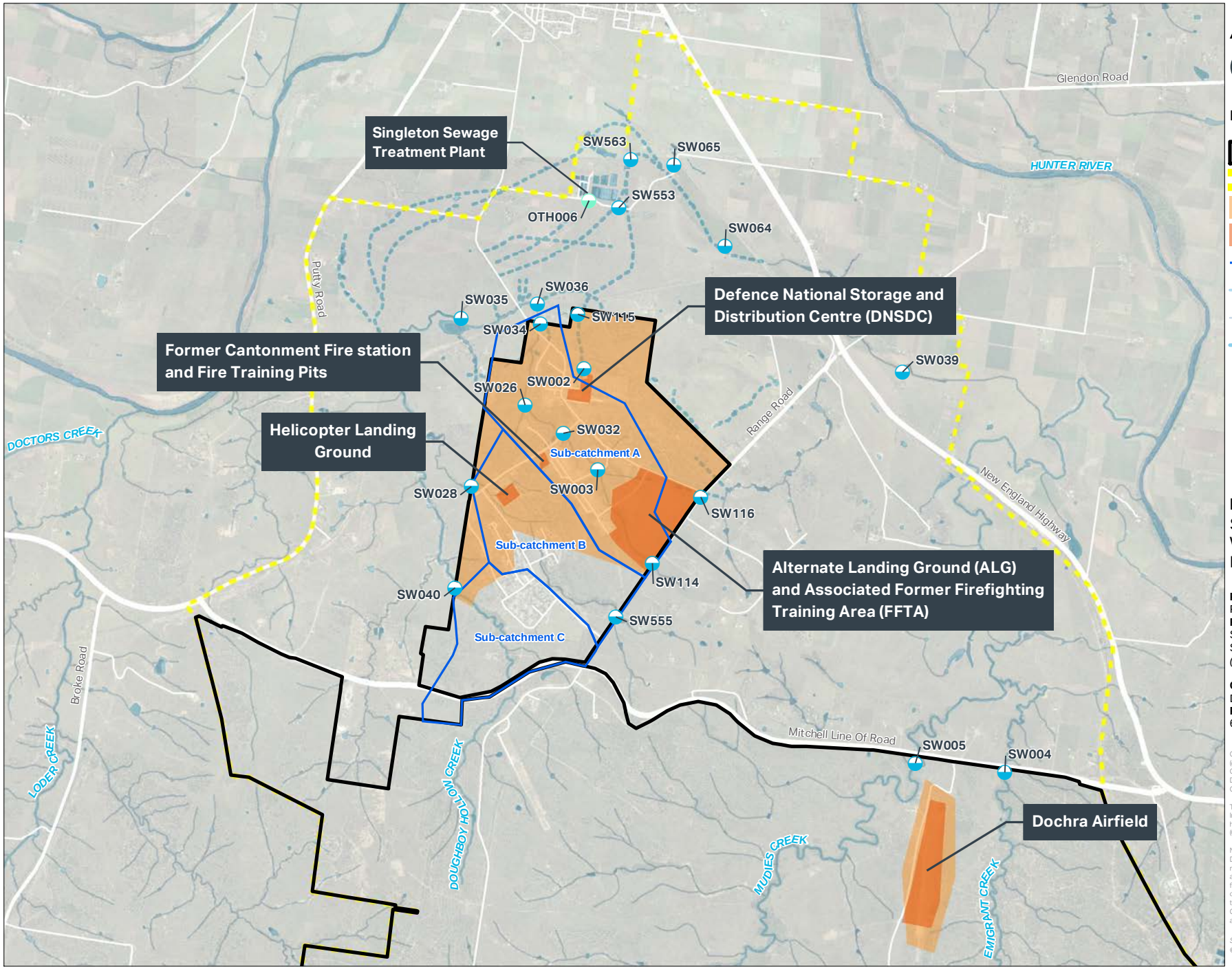
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0 0.5 1 km

Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Area
- Catchment Boundaries
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Surface Water Sample Location
- Wastewater Sample Location

FIGURE F3:
SURFACE WATER AND WASTEWATER SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
Singleton Military Area
(Site ID 0356)

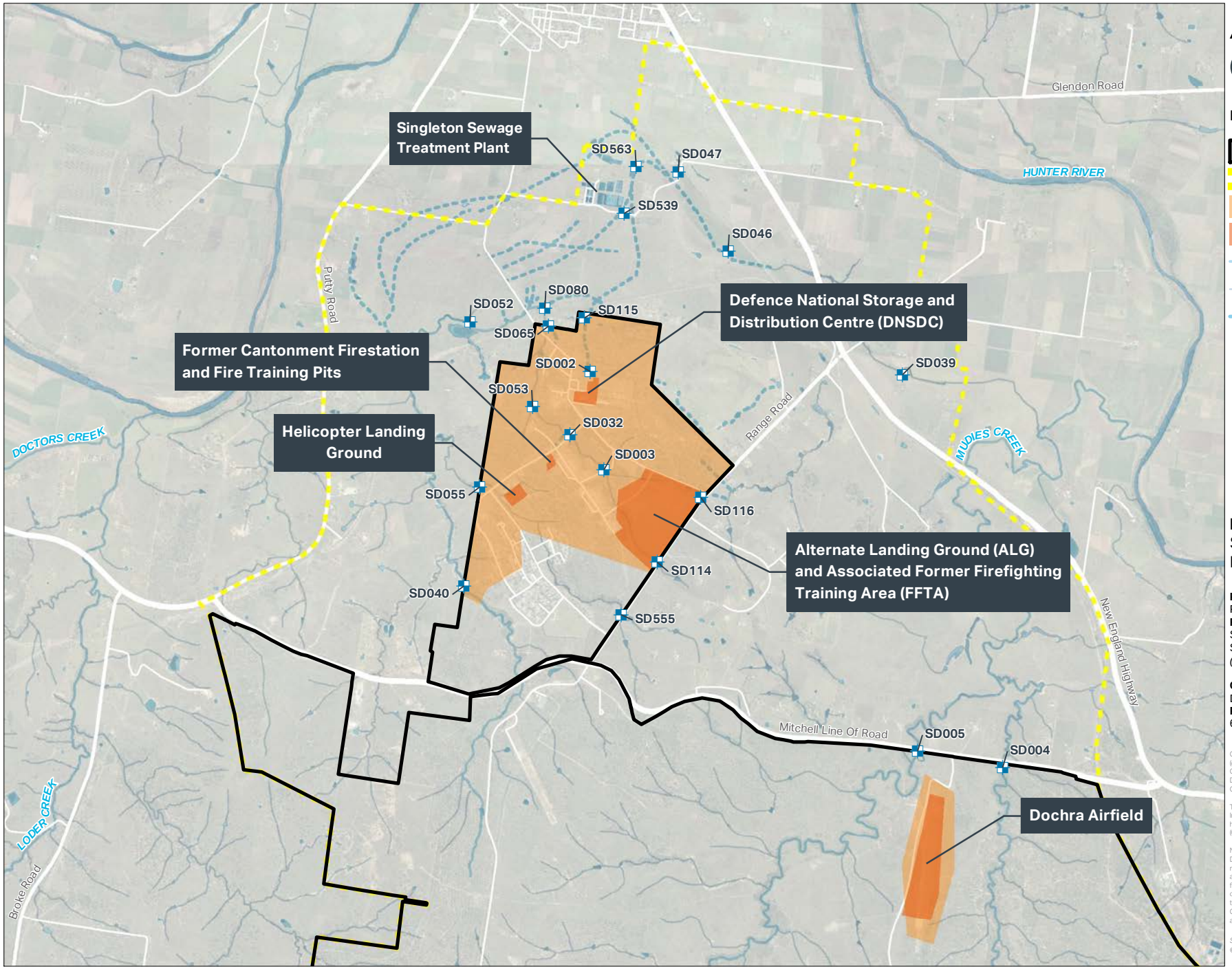
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Legend

- Site Boundary
- Former Investigation
- On-site Management
- PFAS Source Area
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Sediment Sample Location

FIGURE F4:
SEDIMENT SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
Singleton Military Area
(Site ID 0356)

CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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Appendix B

Standard PFAS Analytical Suite Guidance

Australian Government
Defence

Department of Defence

PFAS INVESTIGATION AND MANAGEMENT

GUIDANCE DOCUMENT E
STANDARD PFAS ANALYTICAL SUITE

Document Version History

Document Reference	Revision	Date
AF29889468	1	10 July 2017
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AF32594670	3	6 April 2018
BS24034025	4	1 October 2021
BS24034025	5	29 June 2022

Analytical laboratories analyse a range of PFAS which includes a small subset of all possible PFAS. These analytical suites vary between laboratories and over time as new chemical standards become available. The minimum suite required for Defence PFAS investigations and management is listed in Table 1.

Table 1 Minimum PFAS analytical suite for Defence PFAS investigations and management

Group	Acronym	Chemical Compound	CAS No.
Perfluoroalkane Sulfonic Acids	PFBS	Perfluorobutane sulfonic acid	375-73-5
	PFPeS	Perfluoropentane sulfonic acid	2706-91-4
	PFHxS	Perfluorohexane sulfonic acid	355-46-4
	PFHpS	Perfluoroheptane sulfonic acid	375-92-8
	PFOS	Perfluorooctane sulfonic acid	1763-23-1
	PFDS	Perfluorodecane sulfonic acid	335-77-3
Perfluoroalkane Carboxylic Acids	PFBA	Perfluorobutanoic acid	375-22-4
	PFPeA	Perfluoropentanoic acid	2706-90-3
	PFHxA	Perfluorohexanoic acid	307-24-4
	PFHpA	Perfluoroheptanoic acid	375-85-9
	PFOA	Perfluorooctanoic acid	335-67-1
	PFNA	Perfluorononanoic acid	375-95-1
	PFDA	Perfluorodecanoic acid	335-76-2
	PFUnDA	Perfluoroundecanoic acid	2058-94-8
	PFDoDA	Perfluorododecanoic acid	307-55-1
	PFTrDA	Perfluorotridecanoic acid	72629-94-8
	PFTeDA	Perfluorotetradecanoic acid	376-06-7
Perfluoroalkyl Sulfonamides	FOSA	Perfluorooctane sulfonamide	754-91-6
	MeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8
	EtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2
	MeFOSE	N-methyl perfluorooctane sulfonamidoethanol	24448-09-7
	EtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2
	MeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid	2355-31-9
	EtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid	2991-50-6
(n:2) Fluorotelomer Sulfonic Acids	4:2 FTS	4:2 Fluorotelomer sulfonic acid	757124-72-4
	6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2
	8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4
	10:2 FTS	10:2 Fluorotelomer sulfonic acid	120226-60-0

The minimum PFAS analytical suite is based on consideration of analytical capability and the dominant PFAS that are likely to be present in environmental media due to legacy contamination from AFFF used by Defence. In specific instances, for example analysis of AFFF concentrates, it may be necessary to use other methods such as the TOP and/or TOF assays. In these cases, the analytical methods need to be established by data quality objectives (DQOs) for the project.

The laboratory is required to use NATA accredited methods for PFAS quantification based on guidance in the *PFAS National Environmental Management Plan* (NEMP, 2020).

END OF TEXT

Appendix F

OMP Sampling Event Reports

Prepared for
Department of Defence
ABN: 68706814312

AECOM

Sampling Event Factual Report, July 2024

PFAS OMP - Singleton Military Area (Site ID 0356)

02-May-2025
Doc No. 20250502_OMP002_SMA_SamplingEventFactualReport_Rev1

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Delivering a better world

Sampling Event Factual Report, July 2024

PFAS OMP - Singleton Military Area (Site ID 0356)

Client: Department of Defence

ABN: 68706814312

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
Defence	Department of Defence
DNSDC	Defence National Storage and Distribution Centre
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation-Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SD	Sediment
STP	Sewage Treatment Plant
SW	Surface Water

List of Units

Units	Term
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mbTOC	Metres below Top of Casing
mg/kg	Milligrams per kilogram
mg/L	Milligrams per Litre
mV	Millivolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at Singleton Military Area (the 'Site', Site ID 0356) in New South Wales (NSW). The location of the Site and surrounding areas is shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2021c) outlines the sampling requirements for the on-Site and off-Site areas within the Management Area.

Following each sampling event, a factual sampling event report is prepared. An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period.

This Sampling Event Factual Report has been prepared to report the results of the July 2024 biennial sampling event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA) in surface water and groundwater. Trends in concentrations of the abovementioned PFAS in sediment and wastewater effluent are also reported.

This report has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance (Version 0.2)* issued in May 2021 (Defence, 2021a).

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2021c) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2021b).

The objective of this phase of works was to implement the scope of works for the July 2024 biennial sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2024).

2.0 Scope of Work

The scope of works was completed in general accordance with the SAQP (AECOM, 2024), as follows:

- obtain permission (where required) to conduct works at the Site, off-Site publicly accessible areas and at private properties
- gauging of groundwater level in monitoring wells prior to collection of samples
- collection of groundwater samples and water quality parameters at 26 of 30 scheduled monitoring wells and bores (refer to **Table 1** below and **Figure F2** in **Appendix A** for specific locations)
- collection of surface water samples and water quality parameters at 19 of 20 scheduled surface water locations (refer to **Table 2** below and **Figure F3** in **Appendix A** for specific locations)
- collection of sediment samples at 19 of 20 scheduled sediment locations (refer to **Table 3** below and **Figure F4** in **Appendix A** for specific locations)
- collection of a wastewater effluent sample at one scheduled location (refer to **Table 3** below and **Figure F3** in **Appendix A** for specific location)
- collection of field intra-laboratory duplicate samples at a rate of 1 in 10 primary samples
- collection of field inter-laboratory duplicate samples at a rate of 1 in 10 primary samples
- collection of rinsate blank samples at a rate of 1 per day of sampling per piece of equipment which is decontaminated and re-used between sampling locations
- analysis of samples for PFAS full suite (28 analytes) at the standard limit of reporting (LOR)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Factual Report.

The deviations from the scheduled scope of works are discussed in detail in **Section 3.0**

Table 1 Groundwater Sampling Locations

On/Off-Site	Area	Sampling Locations	Total
On-Site	Northern Cantonment Boundary (Sub-catchment A)	MW102, MW104*, MW109, MW110, MW114, MW115, MW118	7
	Defence National Storage and Distribution Centre (DNSDC) Compound	MW048, MW049*, MW050, MW052	4
	Former Cantonment Fire Station and Fire Training Pits	MW008, MW011, MW167	3
	Helicopter Landing Ground	MW059	1
	Dochra Airfield	MW063, MW071, MW073	3
Off-Site	North of Site	**MW121**, **MW124**, **MW187D**, **MW187S**	4
	North East of Site	**MW056**, **MW129***, **MW132***, **MW139**	4
	Northern Boundary	**MW126**, **MW128**, **MW188D**, **MW188S**	4
Total			**30**

* Location not sampled
Bold text denotes private property / Council location

Table 2 Surface Water and Wastewater Effluent Sampling Locations

On/Off-Site	Area	Sampling Locations	Total
On-Site	Northern Cantonment Boundary (Sub-catchment A)	SW002, SW003, SW026, SW032, SW034	5
	Northern Cantonment Boundary	SW115	1
	Central Cantonment (Sub-catchment B)	SW028, SW555*	2
	Southern Cantonment (Sub-catchment C)	SW040, SW114, SW116	3
	Dochra Airfield	SW004, SW005	2
Off-Site	North of Site (Doughboy Hollow Creek Catchment)	**OTH006^, SW036, SW064, SW065, SW553, SW563**	6
	East of Site (Doughboy Hollow Creek Catchment)	**SW039**	1
	West of Site (Doughboy Hollow Creek Catchment)	**SW035**	1
Total			**21**

* Location not sampled
^wastewater effluent location
Bold text denotes private property / Council location

Table 3 Sediment Sampling Locations

On/Off-Site	Area	Sampling Locations	Total
On-Site	Northern Cantonment (Sub-catchment A)	SD002, SD003, SD032, SD065, SD053	5
	Northern Cantonment Boundary	SD115	1
	Central Cantonment (Sub-catchment B)	SD055, SD555*	2
	Southern Cantonment (Sub-catchment C)	SD040, SD114, SD116	3
	Dochra Airfield	SD004, SD005	2
Off-Site	North of Site	**SD046, SD047, SD080, SD539, SD563**	5
	East of Site	**SD039**	1
	West of Site	**SD052**	1
Total			**20**

* Location not sampled
Bold text denotes private property / Council location

3.0 Deviations from the SAQP

The July 2024 biennial sampling event was completed in general accordance with the SAQP (AECOM, 2024) with the exception of the deviations outlined in **Table 4** below.

Table 4 Deviations from SAQP (AECOM, 2024)

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples, and associated field parameters, were not collected from 4 of the 30 scheduled groundwater sampling locations.	Groundwater monitoring well MW049 was in a fenced off area (for construction works) and unable to be accessed, and therefore could not be sampled during this sampling event.	The lack of sampling data for MW049 is not considered to have a significant impact on the dataset, or present a significant data gap, as another well (MW048) located in the DNSDC Compound targeting the same shallow aquifer was able to be sampled.
	Groundwater monitoring well MW104 was observed to be dry and therefore could not sampled during the sampling event.	The lack of sampling data for MW104 is not considered to have a significant impact on the dataset, or present a significant data gap, as another well (MW110) located along the Northern Cantonment Boundary targeting the same shallow aquifer was able to be sampled.
	Groundwater locations MW129 and MW132 were unable to be accessed (as access approval from private property owners were not received) and therefore could not be sampled during this sampling event.	The lack of sampling data at these locations presents a potential data gap in monitoring the extent of PFAS in groundwater off-Site to the north and north east of the Site.
Samples, and associated field parameters, were not collected from 1 of the 20 scheduled surface water locations.	Surface water location SW555 was in a fenced off area (for environmental regeneration works) and unable to be accessed, and therefore could not be sampled during this sampling event.	The lack of sampling data at SW555 presents a potential data gap in monitoring the extent of PFAS in surface water migrating off-Site to the east of the Site in sub-catchment B. It is noted however, that historical monitoring data collected under the OMP at SW555 does not indicate that this location is a primary pathway of concern for PFAS migrating off-Site in surface water, given that reported concentrations have consistently been either below the laboratory LOR, or below the adopted human health screening criteria, in the samples analysed.
Samples, and associated field observations, were not collected from 1 of the 20 scheduled sediment locations.	Sediment location SD555 was in a fenced off area (for environmental regeneration works) and unable to be accessed, and therefore could not be sampled during this sampling event.	The lack of sampling data at SD555 presents a potential data gap in monitoring the extent of PFAS in sediment in the eastern Site boundary in sub-catchment B.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the July 2024 biennial sampling event was in accordance with the SAQP (AECOM, 2024) and is summarised in **Table 5** below.

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	Targeted gauging round was completed on 4 July 2024 at accessible monitoring wells scheduled to be sampled during the biennial sampling event. The depth to groundwater (in metres below top of casing [mbTOC]) was measured in each monitoring well during this targeted gauging event. The depth to groundwater was also measured in each accessible monitoring well immediately prior to collection of groundwater. Measurements of depth to groundwater were undertaken using an interface probe, which was tested by the supplier to ensure the instrument was fully operational prior to despatch and use. The equipment supplier records are provided in **Appendix C**.
Field parameters	Temperature, electrical conductivity, dissolved oxygen, oxidation-reduction potential (ORP), pH and observations of water quality were recorded for groundwater and surface water samples. Water quality parameters were collected ex-situ using a calibrated water quality meter. The equipment supplier and field calibration records are provided in in **Appendix C**.
Sampling methodology	**Groundwater Monitoring Wells** Groundwater samples were collected from monitoring wells using a no-purge methodology with HydraSleeves™ which were installed within the screened interval of the wells and avoiding placing the base of the HydraSleeves™ at the base of the monitoring well, where a build-up of sediment may be present. The installation depth of the HydraSleeves™ was recorded (as HydraSleeve™ collar depth in mbTOC). HydraSleeves™, with bottom weights only, were installed / deployed in monitoring wells for a minimum of 4 hours prior to sampling, to allow re-stabilisation of the well following disturbance. For this event, all the HydraSleeves™ were installed during the previous sampling rounds in January 2024 (for biannual locations), July 2023 (for annual locations) and July 2022 (for biennial locations). **Residential Bore** Bore water samples were collected by placing the laboratory provided sample bottle beneath the tap outlet. **Surface Water** Surface water samples were collected from either mid-way through the water column or approximately 0.5 m below the surface (if possible) using a ‘grab’ sample method, without disturbing the bottom of the surface water body and without capturing any surface film, to minimise collection of sediment, or floating materials in the samples. At each location, new laboratory supplied containers were lowered into the water with the caps immediately applied once the containers were full. Where sampling

Item	Details
	points were not able to be accessed safely, surface water samples were collected with use of a sampling pole. Description of each sampling location were recorded (including physical setting, flow observations, presence of sheen or foam, etc). **Sediment** Sediment samples were collected from a depth representative of potentially deposited sediments and collected from within the water body, using a hand trowel to a maximum depth of 0.3 m below the sediment surface. A new laboratory supplied container was used at each location for collection of samples, and any reusable sampling equipment utilised was de-contaminated between locations. Description of each sampling location and the sample material was recorded. **Wastewater Effluent** Sample OTH006 was collected from the in-flow effluent wastewater pipe beneath the Sewage Treatment Plant (STP) pump house. The sample was collected using a dedicated disposable bailer lowered through an access hatch in the base of the pump house. The sample was decanted directly into a new, laboratory supplied container with the cap immediately applied once the container was full.
QA/QC Samples	A Quality Assurance and Quality Control (QA/QC) program was implemented for the sampling and analysis program in order to obtain representative data and assess the reliability of the data obtained. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The RPD should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the laboratory LOR. For this July 2024 biennial sampling event, the QA/QC samples included: • 7 x intra-laboratory duplicates (3 groundwater, 2 surface water and 2 sediment) which met the target frequency • 7 x inter-laboratory duplicates (3 groundwater, 2 surface water and 2 sediment) which met the target frequency • 3 x rinsate blanks, which met the target frequency. The data validation assessment is presented in **Appendix D**.

Item	Details
Sample analysis	Samples were submitted to the primary and secondary laboratories for full PFAS suite at the standard LOR. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.3** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- Department of Health (DoH), 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- Food Standards Australia New Zealand (FSANZ), 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 6** below.

Table 6 Summary of Adopted Screening Criteria: Water

Media	Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors				
Water – Groundwater	Drinking water	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP (HEPA, 2020) are from DoH (2017), which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the Tolerable Daily Intake for PFOS and PFOA from FSANZ (2017) and the methodology described in Chapter 6.3.3 of the NHMRC's Australian Drinking Water Guidelines (ADWG) (2022) to determine drinking water values. For PFHxS, DoH (2017) noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS*
		PFOA	0.56 µg/L	

Media	Pathway	Compound	Criteria	Comment/Reference
				exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS.' *All groundwater results were compared to these criteria.*
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC's water quality advisory recommended an alternative methodology to calculate recreational guideline values. Instead of basing it on an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in the PFAS NEMP (HEPA, 2020). *All surface water results (inclusive of wastewater results) were compared to these criteria.*
		PFOA	10 µg/L	
Ecological Receptors				
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2020) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results (inclusive of wastewater results) were compared to these criteria.*
		PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024). Data validation assessment is provided in **Appendix D**.

Data validation procedures employed in the assessment of the field and laboratory Quality Assurance and Quality Control data, completed as per Section 3.2 of the SAQP, indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable (i.e. >95% of the data were suitable for use and DQIs passed acceptance criteria) for the purpose of the factual report.

Following the reporting of PFAS concentrations outside historical ranges for two locations (MW188S, located offsite, north of the northern site boundary, and SD563, located downstream and north of the

Singleton STP), the primary laboratory was requested to repeat the analysis which confirmed the originally reported concentrations.

All data collected during the monitoring period had been reviewed and uploaded to the Defence ESdat database in accordance with the Defence Contamination Management Manual requirements.

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the July 2024 biennial sampling event completed between 2 and 4 July 2024 are summarised in **Table 7** below.

Table 7 General Observations

Items	Observations
Weather Conditions	During the sampling event, the weather was observed to be mildly wet and cool, with maximum daily temperatures between 14.9 ˚C (2 July 2024) and 17.1˚C (4 July 2024) and a cumulative 2.0 mm of rainfall (1.4 mm on 2 July 2024) recorded at Singleton (Singleton Defence AWS, Station 061430) (Bureau of Meteorology, 2024).
Estate Management Works, Training Activities and/or Construction Works.	Construction works were being carried out across the Site. Several sampling locations were initially inaccessible due to barricades and blocked/closed roads along the northern, eastern and western Site boundaries but in most cases were eventually accessed by the end of the sampling event. However, construction works carried out in the DNSDC Compound area prevented access to MW049 (which was within the fenced area of the construction site) during the sampling event. Furthermore, environmental revegetation works being carried out along the eastern boundary of the Site, prevented access to co-located surface water and sediment locations SW555 and SD555 (which were within the fenced area of the exclusion zone) during the sampling event.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the July 2024 biennial sampling event are summarised in **Table 8**.

Table 8 Field Observations and Measurements

Item	Description
Monitoring Well Network Condition	All wells sampled were observed to be in good condition with the exception of the following: • MW121: the well gatic was full of water above top of casing (TOC). The water was removed prior to opening the well and sampling. • MW188D: the well monument and casing were damaged (knocked over at ground level). The part of the casing in the ground was still intact, with the j-cap secured at ground level. The well was able to be accessed and sampled.
Water Observations	No visible signs of contamination were observed in groundwater and surface water at the locations sampled. A biosheen was noted at surface water location SW004. Sulphurous odours were noted five groundwater locations (MW008, MW109, MW124, MW167, MW188D). Organic odours were noted at one surface water location (SW002) and at the wastewater effluent location (OTH006).

Item	Description
Depth to Groundwater and Flow Direction	Depth to groundwater ranged from 1.402 (MW048) and 17.405 (MW118) mbTOC. Groundwater elevation ranged between 28.835 (MW056) and 70.178 (MW052) metres Australian Height Datum (mAHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. Inferred groundwater contours and groundwater flow directions for the shallow and deep wells are shown on **Figure F5** and **Figure F6** in **Appendix A**, respectively. The groundwater elevation contours are based on data collected during the targeted gauging round on 4 July 2024, and additional gauging data collected from residential locations (MW056, MW126, MW128) on 3 July 2024. The inferred groundwater flow direction in both the shallow and deep aquifer were to the north northeast, consistent with previous observations during the Detailed Site Investigation (AECOM, 2019).
Water Quality Parameters	Groundwater and surface water quality parameters were measured during the collection of water samples. The readings are presented in **Table T2** and **Table T3** in **Appendix B** and are summarised below: **Groundwater Quality Parameters** • Dissolved oxygen ranged from 0.69 mg/L (MW008) to 5.88 mg/L (MW139) indicating poorly to moderately oxygenated conditions. • Electrical conductivity ranged from 171.9 µS/cm (MW052) to 26,668 µS/cm (MW008) indicating fresh to saline conditions. • pH ranged from 5.46 (MW048) to 9.88 (MW071) indicating moderately acidic to alkaline conditions. • ORP (corrected) ranged from 61.6 mV (MW167) to 390.7 mV (MW056) indicating reducing to mildly oxidising conditions. • Temperature ranged from 13.8˚C (MW139) to 20.9.0˚C (MW073). **Surface Water Quality Parameters** • Dissolved oxygen ranged from 2.88 mg/L (SW036) to 8.42 mg/L (SW563) indicating poorly to well oxygenated conditions. • Electrical conductivity ranged from 127.0 µS/cm (SW003) to 1,257 µS/cm (SW116) indicating fresh to brackish conditions. • pH ranged from 5.95 (SW032) to 9.18 (SW563) indicating moderately acidic to alkaline conditions. • ORP (corrected) ranged from 82.3 mV (SW026) to 373.8 mV (SW032) indicating reducing to mildly oxidising conditions. • Temperature ranged from 9.3˚C (SW005) to 19˚C (SW114).
Sediment Observations	Sediment sampled and logged during this monitoring event comprised gravelly to clayey sand and silty clay materials with inclusions of organic materials (mostly rootlets). No anthropogenic inclusions or staining were observed. No odours were noted at the sediment locations sampled. Refer to in **Table T4** in **Appendix B** for a summary of sediment classifications and observations.

5.3 Summary of Analytical Results

5.3.1 Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, 26 primary groundwater samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 14 primary samples
- PFOS+PFHxS and/or PFOA exceeding the adopted drinking water human health screening criteria in three primary samples
- PFOS and/or PFOA exceeding the adopted ecological screening criteria in ten primary samples.

Deviations from the historical dataset are provided in **Table 9** and on **Figure F7** in **Appendix A**.

Table 9 Deviations from Historical Dataset - Groundwater

Deviation Type	Groundwater sampling location	PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Jul 2024	Previous maximum	Jul 2024	Previous maximum	Jul 2024	Previous maximum
First-time detections of PFOS+PFHxS PFOS and/or PFOA in groundwater	MW124	There were no first-time detections in the dataset.		There were no first-time detections in the dataset.		0.01	<LOR
	MW188S	0.04	<LOR	There were no first-time detections in the dataset		There were no first-time detections in the dataset.	
New exceedance of the NEMP (HEPA, 2020) drinking water guidelines in groundwater	n/a	There were no new exceedances of the NEMP Human Health Screening Criteria (Drinking Water) in the dataset.		There were no new exceedances of the NEMP Human Health Screening Criteria (Drinking Water) in the dataset.		There are no applicable NEMP Human Health Screening Criteria (Drinking Water).	
New exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in groundwater	MW124	There are no applicable NEMP Ecological Screening Criteria (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).		0.01	<LOR
Legend							
Blue Shading	Blue shading indicates sampling location with first-time detection of PFOS+PFHxS, PFOS and/or PFOA						
Yellow Shading	Yellow shading indicates sampling location with new exceedance of NEMP Human Health and/or Ecological Screening Criteria						

5.3.2 Surface Water and Wastewater Analytical Results

The PFAS analytical results for surface water (inclusive of wastewater) from this sampling event are presented in **Table T6** in **Appendix B**. In summary, 19 primary surface water samples and one wastewater effluent sample were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 12 primary surface water samples and one wastewater effluent sample
- PFOS+PFHxS and/or PFOA not exceeding the adopted recreational use human health screening criteria in the primary surface water samples and the wastewater effluent sample
- PFOS and/or PFOA exceeding the adopted ecological screening criteria in 12 primary surface water samples and one wastewater effluent sample.

There were no first-time detections or new exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the surface water and wastewater effluent samples analysed.

5.3.3 Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T7** in **Appendix B**. In summary, 19 primary sediment samples were analysed for PFAS compounds, with concentrations of PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in the 17 primary samples.

There were no first-time detections for PFOS+PFHxS, PFOS and/or PFOA in the sediment samples analysed.

5.4 Historical Sampling Data

Historical groundwater, surface water (inclusive of wastewater), and sediment sampling data are presented in **Tables T8**, **T9** and **T10** in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The July 2024 biennial sampling event was completed between 2 and 4 July 2024. The findings and the recommended actions are summarised in **Table 10** below.

Table 10 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following were accessed and able to be sampled: • 26 groundwater locations • 19 surface water locations • 1 wastewater effluent location • 19 sediment locations	Nil.
Location unable to be located, inaccessible or dry	The following locations were not able to be sampled during this sampling event: • MW049 was unable to be accessed (as observed to be in a fenced off area for construction works) • MW104 was observed to dry • MW129 and MW132 were unable to be accessed (as access approval from private property owners were not received) • SW555/SD555 were unable to be accessed (as observed to be in a fenced off area for environmental regeneration works).	Attempt to visit sampling locations MW049, SW555 and SD555 during the next scheduled sampling event. It is recommended that groundwater sampling location MW104 be removed from the OMP scope as the location has been dry during all previous OMP sampling events to date. It is recommended that alternate groundwater monitoring wells be identified or that new groundwater monitoring wells be installed in the vicinity of MW129 and MW132 to provide better coverage in the area.
Monitoring well network condition	All monitoring wells that were able to be accessed were noted to be in good condition with the exception of the following: • MW121: the well gatic was full of water above the TOC. The water was removed prior to opening the well. • MW188D: the well monument and casing were damaged (knocked over at ground level). The part of the casing in the ground was still intact, with the j-cap secured at ground level.	It is recommended that the monument and well casing above ground level at MW188D be repaired during the next scheduled sampling event.
Analytical Results	26 groundwater primary samples, 19 surface water primary samples, one wastewater effluent sample and 19 sediment primary samples were analysed.	Locations to be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

Item	Comment	Recommended Action
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	Two of the 26 groundwater locations sampled reported first-time detections of PFOS+PFHxS, PFOA and/or PFOS. No surface water, wastewater or sediment locations sampled reported first-time detections of PFOS+PFHxS, PFOA and/or PFOS.	Locations to be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted human health screening criteria	No groundwater, surface water, wastewater or sediment locations sampled reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA.	Locations to be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted ecological screening criteria	One of the 26 groundwater locations sampled reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA. No surface water, wastewater or sediment locations sampled reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA.	Locations to be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for January 2025.

6.3 Upcoming Ongoing Monitoring Report

The data from this July 2024 biennial sampling event will be included in a future OMR, which would capture data from July 2024 to June 2025.

7.0 References

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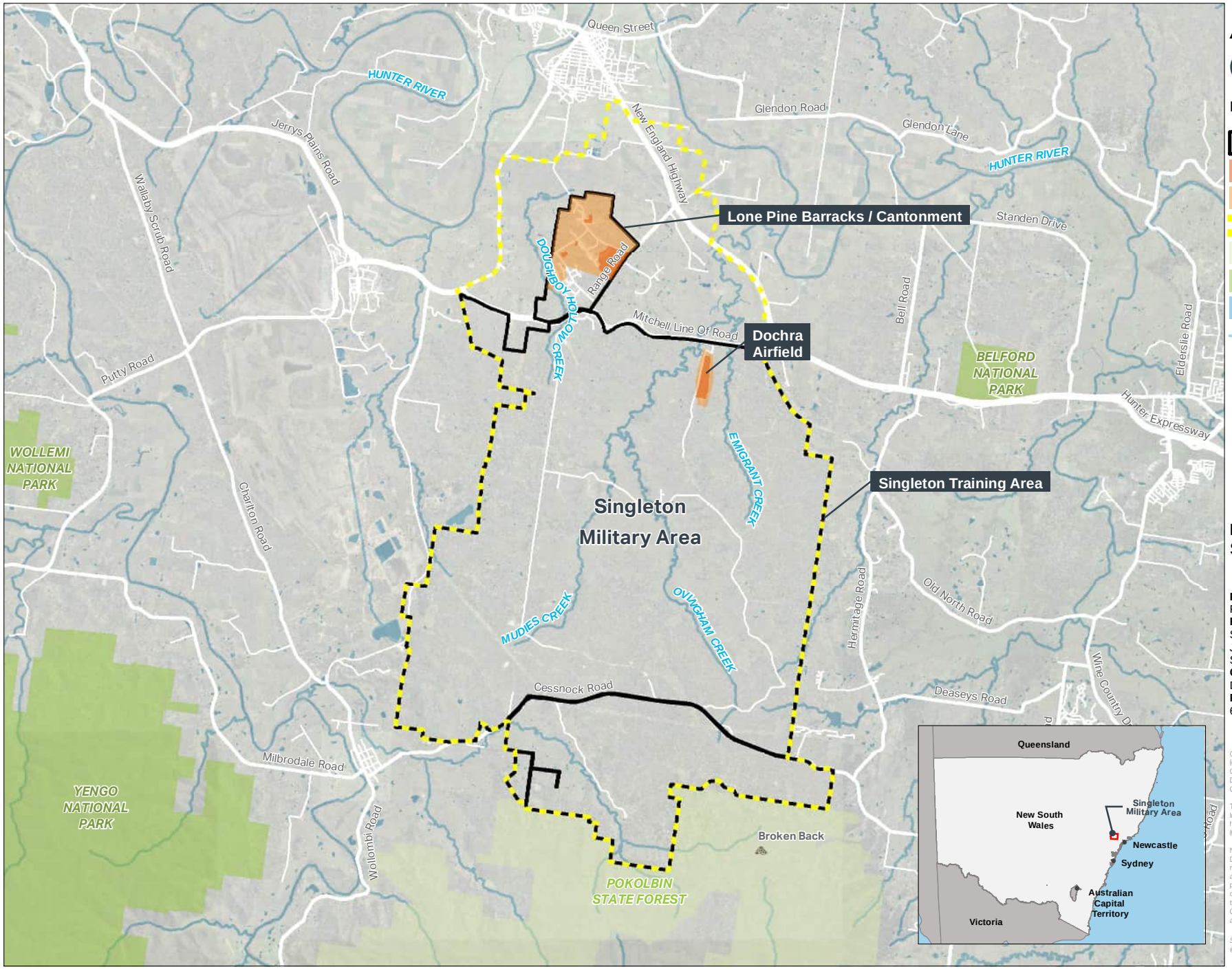
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Standards Australia 1998. AS/NZ 5667:1998 *Water quality – sampling.*

Appendix A

Figures



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N

0 1.5 3 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Management Area
- Former Investigation Area
- State Forest
- NPWS Reserve
- Waterbody
- Watercourse

FIGURE F1:
SITE LOCATION

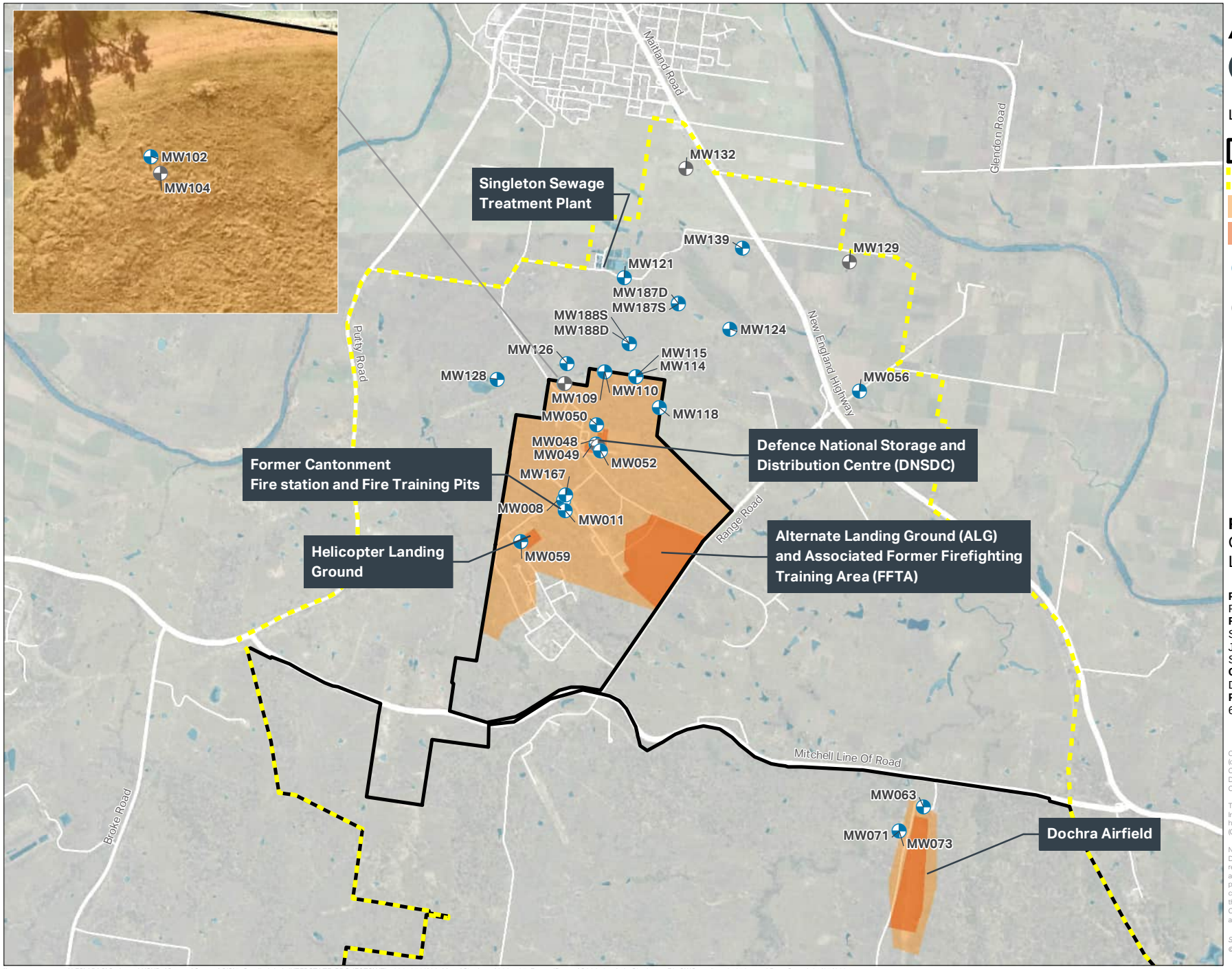
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PFAS OMP
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Sampling Event Factual Report
July 2024
Singleton Military Area (0356)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

FIGURE F2:
GROUNDWATER SAMPLE LOCATIONS

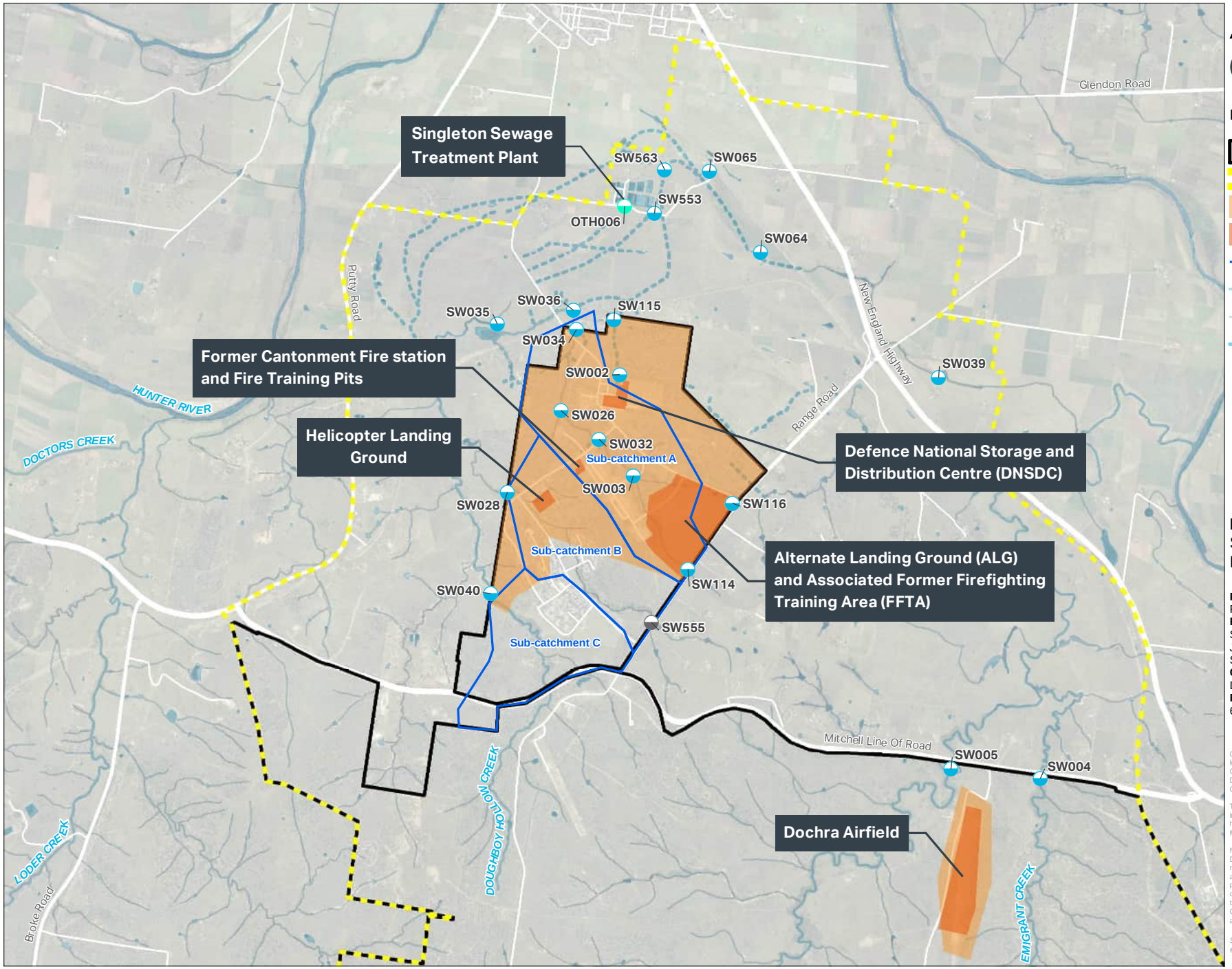
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Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- Catchment Boundaries
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Surface Water Location (sampled)
- Surface Water Location (not sampled)
- Waste Water Location (sampled)

FIGURE F3:
SURFACE WATER SAMPLE LOCATIONS

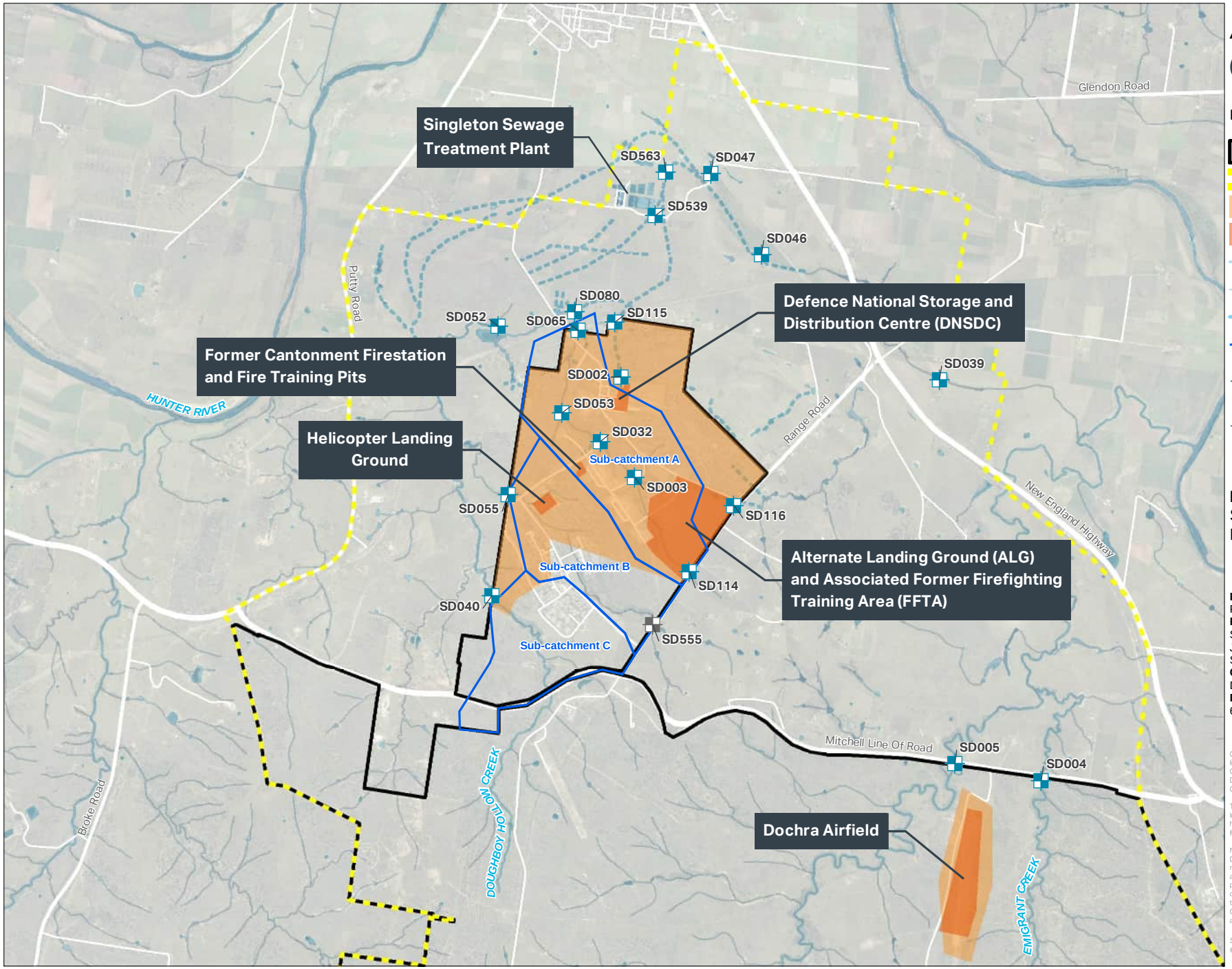
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Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Catchment Boundaries
- Sediment Location (sampled)
- Sediment Location (not sampled)

FIGURE F4:
SEDIMENT SAMPLE LOCATIONS

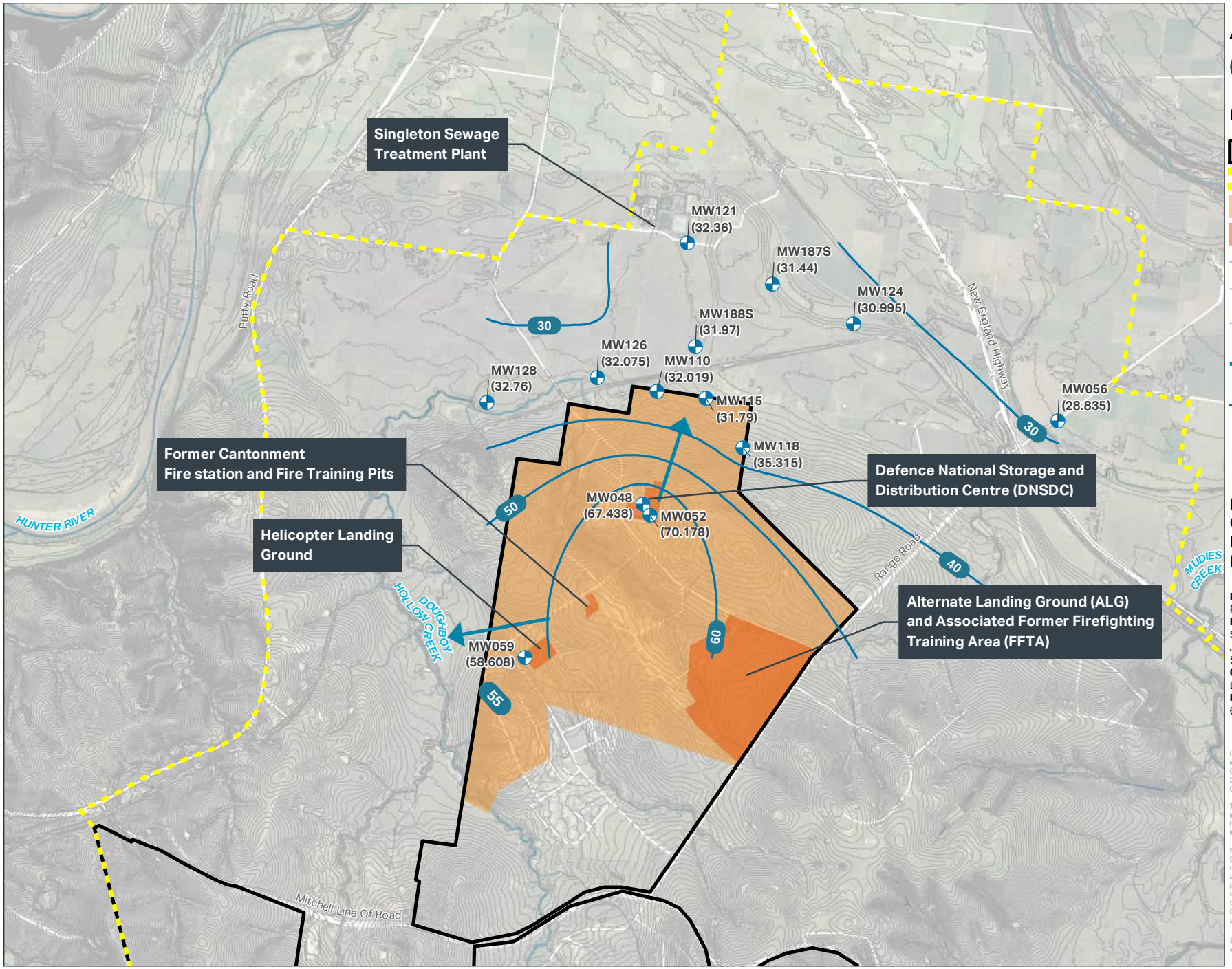
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Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- 1 mAHD Topographical Contour
- Inferred Groundwater Flow Direction
- Groundwater Contours (mAHD)
- Groundwater Location (gauged)

FIGURE F5:
GROUNDWATER ELEVATION PLAN - SHALLOW

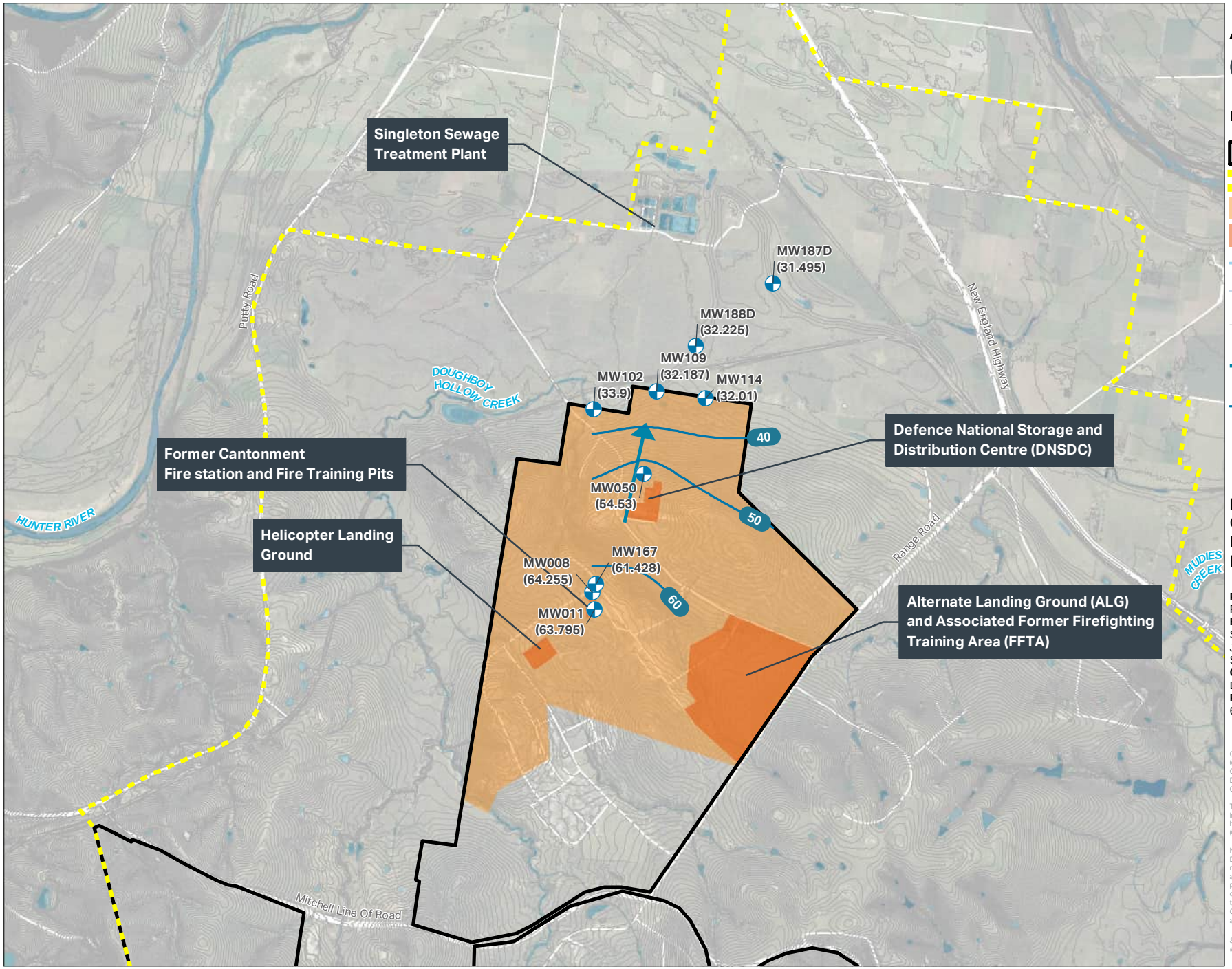
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Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- Watercourse
- Drainage Line
- 1 mAHD Topographical Contour
- Inferred Groundwater Flow Direction
- Groundwater Contours (mAHD)
- Groundwater Location (gauged)

FIGURE F6:
GROUNDWATER ELEVATION PLAN - DEEP

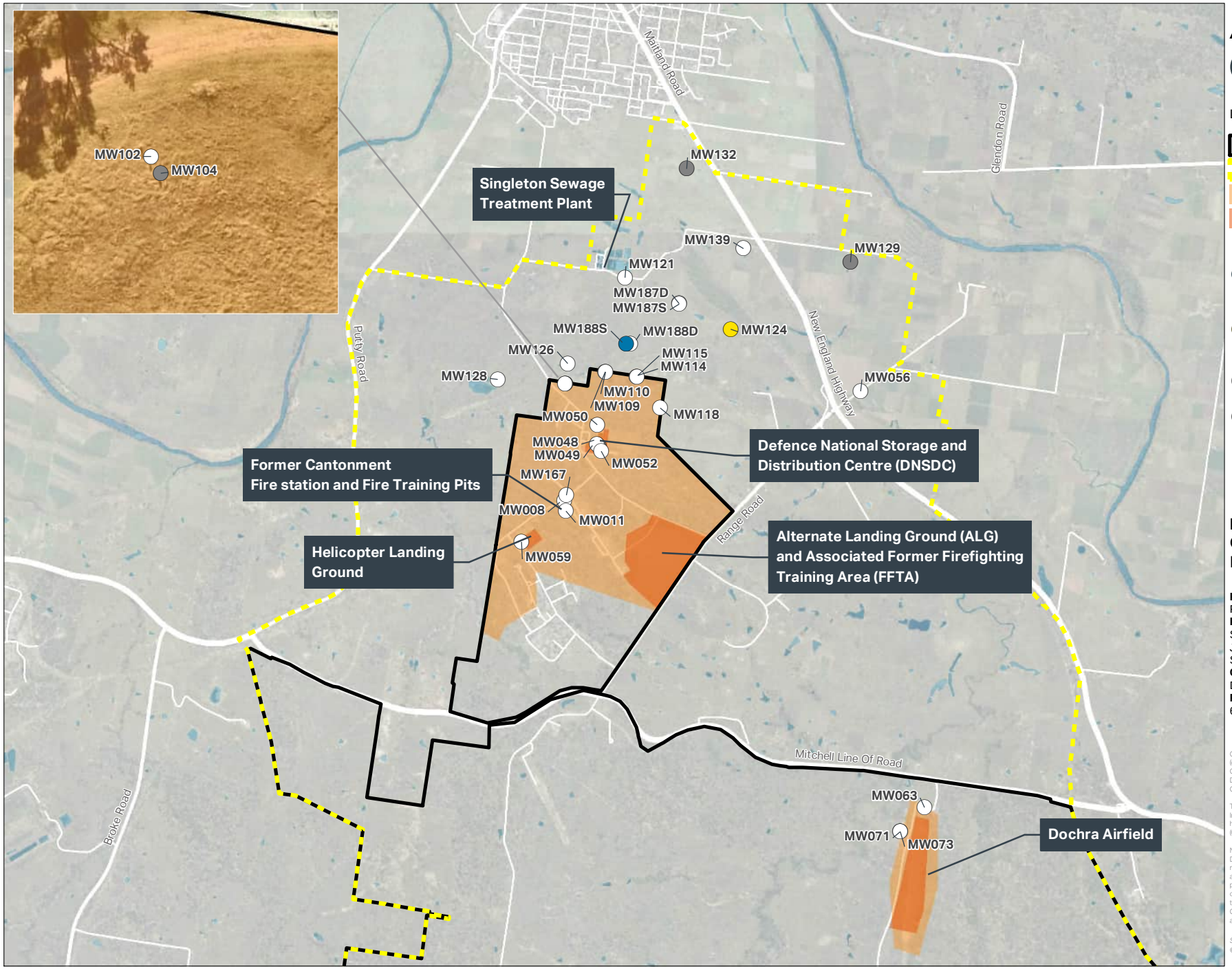
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0 0.5 1 km

Legend

- Site Boundary
- Former Investigation Area
- On-site Management Area
- PFAS Source Areas
- First Time Detection of PFOS, PFOS+PFHxS and/or PFOA
- New Exceedence of Human Health and/or Ecological Screening Criteria for PFOS, PFOS+PFHxS and/or PFOA
- Sampled, no first time detection or new exceedance
- Location not accessed and/or sampled

FIGURE F7:
GROUNDWATER ANALYTICAL RESULTS

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Appendix B

Tables

Table T1 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbgl)	Bottom Screen (mbgl)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit/Gauging Comment
MW008	CNN0018_GW08	74.1	11	14	13	2/07/2024 12:15	9.704	64.396	14.96	Good condition.
MW008	CNN0018_GW08	74.1	11	14	-	4/07/2024 10:57	9.845	64.255	-	Targeted gauging round. Good condition.
MW011	CNN0018_GW02/CNN0018_GW002	74.13	9	12	11	2/07/2024 12:01	10.316	63.814	12.75	Good condition.
MW011	CNN0018_GW02/CNN0018_GW002	74.13	9	12	-	4/07/2024 10:54	10.335	63.795	-	Targeted gauging round. Good condition.
MW048	CNN0039_GW01/CNN0039_GW001	69.11	4	7	5	2/07/2024 10:25	1.402	67.708	6.77	Good condition.
MW048	CNN0039_GW01/CNN0039_GW001	69.11	4	7	-	4/07/2024 13:08	1.672	67.438	-	Targeted gauging round. Good condition.
MW049	CNN0039_GW02/CNN0039_GW002	69.76	2.7	8.7	n/a	2/07/2024 10:34	n/a	n/a	n/a	Unable to access. Located within fenced off construction site.
MW050	CNN0039_GW03	64.4	12.5	16	14.5	2/07/2024 10:04	9.444	54.956	16.96	Good condition.
MW050	CNN0039_GW03	64.4	12.5	16	-	4/07/2024 13:12	9.870	54.530	-	Targeted gauging round. Good condition.
MW052	CNN0039_GW05	72.05	0.8	3.8	2.8	2/07/2024 10:39	1.898	70.152	4.74	Good condition.
MW052	CNN0039_GW05	72.05	0.8	3.8	-	4/07/2024 13:05	1.872	70.178	-	Targeted gauging round. Good condition.
MW056	GW12, MW12S	34.71	5.3	8.3	5.7	3/07/2024 8:54	5.875	28.835	8.25	Good condition.
MW059	HLG_GW03	61.14	2	4	3.5	2/07/2024 11:49	2.540	58.600	4.76	Good condition.
MW059	HLG_GW03	61.14	2	4	-	4/07/2024 10:50	2.532	58.608	-	Targeted gauging round. Good condition.
MW063	NSW1164_MW001D/NSW1164_MW01D	42.88	16	19	18	4/07/2024 9:22	11.095	31.785	19.95	Good condition.
MW071	NSW1164_MW003D	47.87	23.5	29.5	25.5	4/07/2024 9:56	8.035	39.835	30.66	Good condition.
MW073	NSW1164_MW03S	47.91	7	10	9	4/07/2024 9:59	10.280	37.630	11.54	Good condition.
MW102	GW02D	46.82	12.5	15.5	13	2/07/2024 9:23	12.842	33.978	16.69	Good condition.
MW102	GW02D	46.82	12.5	15.5	-	4/07/2024 13:24	12.920	33.900	-	Targeted gauging round. Good condition.
MW104	GW02S	46.72	10	13	n/a	2/07/2024 9:16	13.000	33.720	12.86	Good condition. Dry. Confirmed still dry on 4 July 2024.
MW109	GW03D	45.1	24.5	30	29	4/07/2024 11:24	12.913	32.187	30.01	Good condition.
MW110	GW03S	45.4	11.5	14	13.5	4/07/2024 11:23	13.381	32.019	14.72	Good condition.
MW114	GW04D	45.9	23.5	29.5	29.3	4/07/2024 11:44	13.890	32.010	30.61	Good condition.
MW115	GW04S	45.86	11	14	13.8	4/07/2024 11:52	14.070	31.790	14.87	Good condition. HydraSleeve blocking IP to access depth water. Removed HydraSleeve to record depth water. Rootlets present on IP.
MW118	GW05S	52.72	unknown	unknown	24.8	4/07/2024 12:12	17.405	35.315	25.93	Good condition.
MW121	GW06/GW06S	39.82	9.5	12.5	10.5	3/07/2024 14:11	7.145	32.675	12.32	Good condition. Gatic flooded above TOC. Water removed prior to opening j-cap.
MW121	GW06/GW06S	39.82	9.5	12.5	-	4/07/2024 15:08	7.460	32.360	-	Targeted gauging round. Good condition.
MW124	GW07/GW07S	38.68	9.4	13.8	11.5	3/07/2024 12:37	7.710	30.970	13.70	Good condition.
MW124	GW07/GW07S	38.68	9.4	13.8	-	4/07/2024 14:45	7.685	30.995	-	Targeted gauging round. Good condition.
MW126	GW08S	42.78	10.5	13.5	10.9	3/07/2024 11:06	10.705	32.075	12.12	Good condition.
MW128	GW09S	44.08	9.2	12.2	12.6	3/07/2024 10:32	11.320	32.760	13.65	Good condition.
MW129	GW10S	37.95	9	12	n/a	3/07/2024 16:00	n/a	n/a	n/a	Unable to access. Unable to confirm residential appointment.
MW132	RESI_GW011	unknown	unknown	unknown	n/a	3/07/2024 16:02	n/a	n/a	n/a	Unable to access. Unable to confirm residential appointment. Residential bore with tap.
MW139	RESI_GW013/RESI_GW13	n/a	n/a	n/a	n/a	4/07/2024 14:05	n/a	n/a	n/a	Residential bore with tap.
MW167	CNN0230_GW01	72.65	14.5	20.5	17.5	2/07/2024 12:28	11.178	61.472	20.48	Good condition.
MW167	CNN0230_GW01	72.65	14.5	20.5	-	4/07/2024 11:00	11.222	61.428	-	Targeted gauging round. Good condition.
MW187D	MW09D	40.23	18.7	24.7	22.7	3/07/2024 12:57	8.760	31.470	25.66	Good condition.
MW187D	MW09D	40.23	18.7	24.7	-	4/07/2024 14:50	8.735	31.495	-	Targeted gauging round. Good condition.
MW187S	MW09S	40.4	7	10	9	3/07/2024 12:47	8.980	31.420	10.86	Good condition.
MW187S	MW09S	40.4	7	10	-	4/07/2024 14:50	8.960	31.440	-	Targeted gauging round. Good condition.
MW188D	MW10D	41.25	24	30	27	3/07/2024 13:26	9.005	32.245	28.25	Monument destroyed. PVC casing still intact, j-cap secured. The well is able to be accessed and sampled.
MW188D	MW10D	41.25	24	30	-	4/07/2024 14:58	9.025	32.225	-	Targeted gauging round. Monument destroyed. PVC casing still intact, j-cap secured.
MW188S	MW10S	41.12	8	11	10	3/07/2024 13:29	9.150	31.970	12.04	Good condition.
MW188S	MW10S	41.12	8	11	-	4/07/2024 14:57	9.150	31.970	-	Targeted gauging round. Good condition.

Notes

mbgl	meters below ground level
mbTOC	meters below Top of Casing
mAHD	meters Australian Height Datum
n/a	Not applicable
-	Not measured

Table T2 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	µS/cm	pH Units	mV	mV
Location Code	**Location Alt. Name**	**Sampled/Visit Date**	**Sample Comments**						
MW008	CNN0018_GW08	2/07/2024 12:16	Clear, no turbidity, sulfuric odour, no sheen. Sediment at base of HydraSleeve.	0.69	19.5	26,668.0	6.89	-129.8	76.0
MW011	CNN0018_GW02/CNN0018_GW002	2/07/2024 12:02	Light grey, low turbidity, no odour, no sheen. Sediment at base of HydraSleeve.	1.92	18.9	20,655.0	5.62	-2.6	203.2
MW048	CNN0039_GW01/CNN0039_GW001	2/07/2024 10:30	Clear, no turbidity, no odour, no sheen.	3.65	20.0	364.0	5.46	10.4	216.2
MW050	CNN0039_GW03	2/07/2024 10:12	Clear, no turbidity, no odour, brown suspended solids.	3.71	16.8	12,693.0	6.87	11.8	217.6
MW052	CNN0039_GW05	2/07/2024 10:39	Clear, no turbidity, no odour, no sheen. Sediment at base of HydraSleeve.	2.20	16.9	171.9	6.17	66.0	271.8
MW056	GW12, MW12S	3/07/2024 8:54	Grey, medium turbidity, no odour, no sheen.	4.00	17.2	1,402.0	7.33	184.9	390.7
MW059	HLG_GW03	2/07/2024 11:50	Clear, no turbidity, no odour, no sheen.	1.39	16.9	20,013.0	6.71	23.5	229.3
MW063	NSW1164_MW001D/NSW1164_MW01D	4/07/2024 9:23	Clear, no turbidity, no odour, no sheen.	3.86	17.6	13,930.0	7.57	164.4	370.2
MW071	NSW1164_MW003D	4/07/2024 9:57	Clear, no turbidity, no odour, no sheen.	2.14	19.7	10,921.0	9.88	-127.9	77.9
MW073	NSW1164_MW03S	4/07/2024 10:00	Light brown, no turbidity, no odour, no sheen.	1.51	20.9	25,914.0	6.72	-52.2	153.6
MW102	GW02D	2/07/2024 9:35	Light brown, no turbidity, no odour, no sheen.	2.32	15.3	18,404.0	6.68	10.7	216.5
MW104	GW02S	2/07/2024 9:16	n/a - Well dry. No sample	n/a	n/a	n/a	n/a	n/a	n/a
MW109	GW03D	4/07/2024 11:25	Light grey, low turbidity, sulfuric odour, no sheen.	1.07	18.9	16,791.0	6.79	-103.2	102.6
MW110	GW03S	4/07/2024 11:24	Light grey, low turbidity, no odour, no sheen.	2.48	18.5	18,490.0	7.13	-21.0	184.8
MW114	GW04D	4/07/2024 11:45	Clear, no turbidity, no odour, no sheen.	1.91	19.9	5,623.0	7.46	-121.9	83.9
MW115	GW04S	4/07/2024 11:53	Clear, no turbidity, no odour, no sheen. Insufficient water for parameters.	n/a	n/a	n/a	n/a	n/a	n/a
MW118	GW05S	4/07/2024 12:13	Clear, no turbidity, no odour, no sheen.	3.31	18.9	15,285.0	6.84	-19.3	186.5
MW121	GW06/GW06S	3/07/2024 14:11	Clear, no turbidity, no odour, no sheen.	2.93	17.0	747.0	7.19	-57.0	148.8
MW124	GW07/GW07S	3/07/2024 12:38	Brown, high turbidity, sulfuric odour, no sheen.	4.55	16.4	7,459.0	6.96	69.2	275.0
MW126	GW08S	3/07/2024 11:06	Light grey, low turbidity, no odour, no sheen.	4.97	17.3	3,728.0	7.29	133.0	338.8
MW128	GW09S	3/07/2024 10:31	Light brown, no turbidity, no odour, no sheen.	4.09	18.2	4,954.0	6.96	144.2	350.0
MW129	GW10S	3/07/2024 16:00	n/a - Unable to access. Unable to confirm residential appointment.	n/a	n/a	n/a	n/a	n/a	n/a
MW132	RESI_GW011	3/07/2024 16:02	n/a - Unable to access. Unable to confirm residential appointment.	n/a	n/a	n/a	n/a	n/a	n/a
MW139	RESI_GW013/RESI_GW13	4/07/2024 14:11	Clear, no turbidity, no odour, no sheen.	5.88	13.8	1,989.0	7.19	126.3	332.1
MW167	CNN0230_GW01	2/07/2024 12:29	Clear, low turbidity, sulfuric odour, no sheen.	1.08	19.9	26,524.0	6.70	-144.2	61.6
MW187D	MW09D	3/07/2024 12:57	Clear, low turbidity, no odour, brown suspended solids.	2.36	17.5	10,357.0	6.99	53.2	259.0
MW187S	MW09S	3/07/2024 12:47	Clear, no turbidity, no odour, no sheen.	3.36	16.9	5,684.0	6.91	42.0	247.8
MW188D	MW10D	3/07/2024 13:26	Clear, no turbidity, sulfuric odour, no sheen.	0.93	18.7	10,638.0	7.91	-117.6	88.2
MW188S	MW10S	3/07/2024 13:30	Clear, no turbidity, no odour, no sheen.	2.37	17.9	7,390.0	7.23	-117.2	88.6

Notes

°C	degrees Celsius
µS/cm	microSiemens per centimetre
mg/L	milligrams per Litre
mV	milliVolts
Corrected field Redox	measurement Eh = Er + 205.8
n/a	not applicable

Table T3 - Surface Water and Wastewater Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
						mg/L	°C	µS/cm	pH Units	mV	mV
Location Code	**Location Alt. Name**	**Date**	**Location Comments**	**Sample Depth (m)**	**Sample Comments**						
SW002	SW002	02 Jul 2024	Dam. Waterbody 15 m wide, 1.5 m deep. No water flow observed.	0.5 - 0.5	Light yellow, no turbidity, organic odour, no sheen.	3.00	12.8	720.0	6.87	-52.3	153.5
SW003	SW003	02 Jul 2024	Creek. Waterbody 4 m wide, 0.5 m deep. Water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	7.40	12.2	127.0	6.37	74.9	280.7
SW004	SW004	04 Jul 2024	Dam. Waterbody 10 m wide, 1 m deep. No water flow osberved.	0.3 - 0.4	Light brown, no turbidity, no odour, biosheen.	3.93	9.9	139.0	6.42	149.7	n/a
SW005	SW005	04 Jul 2024	Creek. Waterbody 2 m wide, 0.5 m deep. Water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	6.70	9.3	361.2	6.71	140.3	n/a
SW026	SMA13_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 1 m deep. Water flow observed.	0.3 - 0.4	Light brown, medium turbidity, no odour, no sheen.	6.49	13.9	895.0	7.00	-123.5	82.3
SW028	SMA7_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 0.5 m deep. Water flow observed.	0.2 - 0.3	Clear, no turbidity, no odour, no sheen.	3.52	12.7	277.6	6.65	106.2	312.0
SW032	SW032	02 Jul 2024	Creek. Waterbody 5 m wide, 0.3 m deep. Water flow observed.	0.1 - 0.2	Light brown, no turbidity, no odour, no sheen.	5.83	11.5	201.3	5.95	168.0	373.8
SW034	SMA8_SW	02 Jul 2024	Creek. Waterbody 3 m wide, 0.4 m deep. No water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	4.91	11.3	144.2	6.45	134.8	n/a
SW035	RESI_SW035	03 Jul 2024	Dam. Waterbody 10 m wide, 1 m deep. No water flow observed.	0.3 - 0.4	Brown, low turbidity, no odour, no sheen.	4.13	13.3	227.3	6.44	110.3	316.1
SW036	RESI_SW036	03 Jul 2024	Dam. Waterbody 10 m wide, 0.5m deep. No water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	2.88	14.4	176.6	6.36	93.6	299.4
SW039	RESI_SW039	03 Jul 2024	Dam. Waterbody 6 m wide, 1 m deep. No water flow observed.	0.3 - 0.4	Grey, low turbidity, no odour, no sheen.	3.90	12.8	471.0	7.16	119.9	325.7
SW040	SW040	04 Jul 2024	Creek. Waterbody 2 m wide, 0.5 m deep. Water flow observed.	0.2 - 0.3	Light brown, low turbidity, no odour, no sheen.	5.09	13.0	1,225.0	7.20	-47.2	158.6
SW064	RESI_SW041	03 Jul 2024	Dam. Waterbody 5 m wide, 0.5 m deep. No water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	5.82	14.4	154.3	7.02	85.2	291.0
SW065	RESI_SW042	03 Jul 2024	Creek. Waterbody 3 m wide, 1 m deep. Water flow observed.	0.3 - 0.4	Clear, no turbidity, no odour, no sheen.	5.74	14.6	512.0	7.33	10.5	216.3
SW114		04 Jul 2024	Drain. Waterbody 1 m wide, 0.3 m deep. No water flow observed.	0.1 - 0.2	Light brown, no turbidity, no odour, no sheen.	7.20	19.0	429.9	8.19	-71.3	n/a
SW115		02 Jul 2024	Creek. Waterbody 2 m wide, 0.2 m deep. Water flow observed.	0.1 - 0.2	Clear, no turbidity, no odour, no sheen.	7.73	13.2	471.0	7.78	-23.9	n/a
SW116		04 Jul 2024	Drain. Waterbody 2 m wide, 0.5 m deep. No water flow observed.	0.2 - 0.3	Light brown, no turbidity, no odour, no sheen.	7.03	16.8	1,257.0	7.32	2.5	n/a
SW553		03 Jul 2024	Creek. Waterbody 5 m wide, 1 m deep. No water flow observed.	0.3 - 0.4	Light brown, low turbidity, no odour, no sheen.	6.11	15.1	262.0	7.23	-43.9	n/a
SW555		04 Jul 2024	Unable to access due to area being fenced off.	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW563		03 Jul 2024	Dam. Waterbody 5 m wide, 0.5 m deep. No water flow observed.	0.2 - 0.3	Clear, no turbidity, no odour, no sheen.	8.42	15.6	495.0	9.18	-30.1	175.7
OTH006	OTH006	03 Jul 2024	Effluent wastewater pit. Waterbody 1 m wide, 0.25 m deep. Water flow observed.	0.1 - 0.2	White/cloudy, medium turbidity, organic odour, no sheen. Geochemical parameters not required.	n/a	n/a	n/a	n/a	n/a	n/a

Notes

°C	degrees Celsius
µS/cm	microSiemens per centimetre
mg/L	milligrams per Litre
mV	milliVolts
Corrected field Redox measurement Eh = Er + 205.8	
n/a	not applicable

Table T4 - Sediment Observations

Location Code	Location Alt. Name	Date	Sample Depth (m)	Sample Comments
SD002	SD002	2/07/2024 10:18	0.1 - 0.2	Sandy CLAY: brown, fine grain sand, high plasticity, wet, with organic inclusions (rootlets). No odour, no staining.
SD003	SD003	2/07/2024 11:04	0.1 - 0.2	Silty CLAY: dark brown, fine grain silt, medium plasticity, wet, with organic inclusions (rootlets). No odour, no staining.
SD004		4/07/2024 8:44	0.1 - 0.2	Silty CLAY: dark brown, fine grain silt, high plasticity, wet, with trace organic inclusions (rootlets). No odour, no staining.
SD005		4/07/2024 9:10	0.1 - 0.2	Sandy silty CLAY: dark brown, fine grain, high plasticity, moist to saturated, with trace organic inclusions (rootlets). No odour, no staining.
SD032	SD032	2/07/2024 8:53	0.1 - 0.2	Clayey sandy GRAVEL: grey with brown clayey sands, medium gravels sub-angular to sub-rounded, fine grain sand, low plasticity, moist. No odour, no staining.
SD039	RESI_SD039	3/07/2024 9:24	0.1 - 0.2	Silty CLAY: dark grey, fine grain silt, high plasticity, moist, with trace organic inclusions (rootlets). No odour, no staining.
SD040	SD040	4/07/2024 10:42	0.1 - 0.2	Gravelly sandy CLAY: dark brown, fine grain, low plasticity, firm, gravels sub-angular to sub-rounded, moist, with trace organic inclusions (rootlets and bark). No odour, no staining.
SD046	RESI_SD041	3/07/2024 12:23	0.1 - 0.2	Silty CLAY: brown, fine grain silt, medium plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
SD047	RESI_SD042	3/07/2024 14:42	0.1 - 0.2	Gravelly SAND: dark brown, fine, loose, gravels sub-angular, with organic inclusions (rootlets). No odour, no staining
SD052	RESI_SD035	3/07/2024 10:20	0.1 - 0.2	Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
SD053	SMA13_SD	2/07/2024 12:49	0.1 - 0.2	Clayey gravelly SAND: dark brown, fine grain, low plasticity, gravels sub-angular to sub-rounded, moist, with trace organic inclusions (rootlets). No odour, no staining.
SD055	SMA7_SD	2/07/2024 11:36	0.1 - 0.2	Silty CLAY: dark brown, fine grain silt, low plasticity, moist, with trace organic inclusions (rootlets and bark >5cm). No odour, no staining.
SD065	SMA8_SD	2/07/2024 9:09	0.1 - 0.2	Clayey SAND: brown, fine grain, with trace organic inclusions (rootlets). No odour, no staining.
SD080	RESI_SD013	3/07/2024 11:01	0.1 - 0.2	Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
SD114		4/07/2024 12:46	0.1 - 0.2	Silty CLAY: orange to brown, low plasticity, firm, moist, with organic inclusions (rootlets). No odour, no staining.
SD115		2/07/2024 9:51	0.1 - 0.2	Clayey SAND: dark brown, fine grain sand, low plasticity, with trace gravels (sub -angular) and organic inclusions (rootlets). No odour, no staining.
SD116		4/07/2024 12:56	0.1 - 0.2	Silty CLAY: orange to brown, low plasticity, firm, moist, with organic inclusions (rootlets). No odour, no staining.
SD539		3/07/2024 14:06	0.1 - 0.2	Silty CLAY: brown, fine grain silt, high plasticity, moist, with organic inclusions (rootlets). No odour, no staining.
SD555		4/07/2024 12:31	n/a	Unable to access due to area being fenced off.
SD563		3/07/2024 14:26	0.1 - 0.2	Silty SAND: dark brown, fine grain, loose, moist, with organic inclusions (rootlets). No odour, no staining.

Table T5 - Groundwater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**																															
MW008	02 Jul 2024	0356_MW008_240702	Normal	ES2422149			<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	02 Jul 2024	0356_MW011_240702	Normal	ES2422149			<0.01	*0.02*	0.04	0.06	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	02 Jul 2024	0356_MW048_240702	Normal	ES2422149			0.08	*0.06*	3.04	**3.10**	4.31	0.20	0.40	0.03	<0.02	<0.1	0.07	0.31	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	02 Jul 2024	0356_MW050_240702	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	02 Jul 2024	0356_MW052_240702	Normal	ES2422149			0.03	*0.72*	0.62	**1.34**	1.53	0.02	0.03	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	03 Jul 2024	0356_MW056_240703	Normal	ES2422147			<0.01	*0.07*	0.02	**0.09**	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	02 Jul 2024	0356_MW059_240702	Normal	ES2422149			<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_MW063_240704	Normal	ES2422149			<0.01	*0.05*	<0.01	0.05	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC105_240704	Field_D	ES2422149			<0.01	*0.05*	<0.01	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC205_240704	Interlab_D	355926			<0.01	*0.04*	<0.01	0.04	0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW071	04 Jul 2024	0356_MW071_240704	Normal	ES2422149			<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_MW073_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC106_240704	Field_D	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC206_240704	Interlab_D	355926			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW102	02 Jul 2024	0356_MW102_240702	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	02 Jul 2024	0356_QC102_240702	Field_D	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	02 Jul 2024	0356_QC202_240702	Interlab_D	355926			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW109	04 Jul 2024	0356_MW109_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	04 Jul 2024	0356_MW110_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	04 Jul 2024	0356_MW114_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	04 Jul 2024	0356_MW115_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	04 Jul 2024	0356_MW118_240704	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	03 Jul 2024	0356_MW121_240703	Normal	ES2422146			<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	03 Jul 2024	0356_MW124_240703	Normal	ES2422146			<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	03 Jul 2024	0356_MW126_240703	Normal	ES2422144			<0.01	<0.01	0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	03 Jul 2024	0356_MW128_240703	Normal	ES2422144			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	04 Jul 2024	0356_MW139_240704	Normal	ES2422143			0.01	*0.03*	0.01	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	02 Jul 2024	0356_MW167_240702	Normal	ES2422149			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	03 Jul 2024	0356_MW187D_240703	Normal	ES2422146			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	03 Jul 2024	0356_MW187S_240703	Normal	ES2422146			<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	03 Jul 2024	0356_MW188D_240703	Normal	ES2422146			<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Jul 2024	0356_MW188S_240703	Normal	ES2422146			<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR
	Denotes new exceedence of human health or ecological screening criteria

Table T6 - Surface Water Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**											**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						**10**			**2**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**																														
OTH006	03 Jul 2024	0356_OTH006_240703	Normal	ES2422142		<0.01	*0.07*	0.02	0.09	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	02 Jul 2024	0356_SW002_240702	Normal	ES2422149		0.05	*0.67*	0.99	1.66	2.02	0.03	0.06	0.04	<0.02	<0.1	0.04	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	02 Jul 2024	0356_SW003_240724	Normal	ES2422149		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_SW004_240704	Normal	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC103_240704	Field_D	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC203_240704	Interlab_D	355926		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	04 Jul 2024	0356_SW005_240704	Normal	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	02 Jul 2024	0356_SW026_240702	Normal	ES2422149		0.01	*0.45*	0.34	0.79	0.87	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	02 Jul 2024	0356_SW028_240702	Normal	ES2422149		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_SW032_240702	Normal	ES2422149		<0.01	*0.43*	0.24	0.67	0.67	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_QC100_240702	Field_D	ES2422149		<0.01	*0.47*	0.21	0.68	0.70	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_QC200_240702	Interlab_D	355926		0.01	*0.36*	0.22	0.58	0.64	0.02	0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW034	02 Jul 2024	0356_SW034_240702	Normal	ES2422149		0.02	*0.61*	0.55	1.16	1.33	0.03	0.03	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	03 Jul 2024	0356_SW035_240703	Normal	ES2422144		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	03 Jul 2024	0356_SW036_240724	Normal	ES2422144		0.01	*0.46*	0.36	0.82	0.93	0.02	0.03	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	03 Jul 2024	0356_SW039_240703	Normal	ES2422145		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	04 Jul 2024	0356_SW040_240704	Normal	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	03 Jul 2024	0356_SW064_240703	Normal	ES2422146		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	03 Jul 2024	0356_SW065_240703	Normal	ES2422146		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW114	04 Jul 2024	0356_SW114_240704	Normal	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW115	02 Jul 2024	0356_SW115_240702	Normal	ES2422149		0.03	*0.85*	0.68	1.53	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW116	04 Jul 2024	0356_SW116_240704	Normal	ES2422149		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	03 Jul 2024	0356_SW553_240703	Normal	ES2422146		<0.01	*0.11*	0.14	0.25	0.25	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	03 Jul 2024	0356_SW563_240703	Normal	ES2422146		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR
	Denotes new exceedence of human health or ecological screening criteria

Table T7 - Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**																														
SD002	02 Jul 2024	0356_SD002_240702	Normal	ES2422149	0.0002	0.0087	0.0016	0.0103	0.0110	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	02 Jul 2024	0356_SD003_240702	Normal	ES2422149	<0.0002	0.0045	0.0006	0.0051	0.0053	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_SD004_240704	Normal	ES2422149	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC104_240704	Field_D	ES2422149	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	355926	<0.0001	0.0002	<0.0001	0.0002	0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD005	04 Jul 2024	0356_SD005_240704	Normal	ES2422149	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	02 Jul 2024	0356_SD032_240702	Normal	ES2422149	<0.0002	0.0040	0.0005	0.0045	0.0048	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	02 Jul 2024	0356_QC101_240702	Field_D	ES2422149	<0.0002	0.0054	0.0006	0.0060	0.0063	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	02 Jul 2024	0356_QC201_240702	Interlab_D	355926	<0.0001	0.0038	0.0006	0.0044	0.0047	<0.0001	<0.0001	<0.0001	0.0003	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD039	03 Jul 2024	0356_SD039_240703	Normal	ES2422145	<0.0002	0.0040	<0.0002	0.0040	0.0040	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	04 Jul 2024	0356_SD040_240704	Normal	ES2422149	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	03 Jul 2024	0356_SD046_240703	Normal	ES2422146	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	03 Jul 2024	0356_SD047_240703	Normal	ES2422146	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	03 Jul 2024	0356_SD052_240703	Normal	ES2422144	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	02 Jul 2024	0356_SD053_240702	Normal	ES2422149	<0.0002	0.0050	0.0005	0.0055	0.0055	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	02 Jul 2024	0356_SD055_240702	Normal	ES2422149	<0.0002	0.0039	0.0004	0.0043	0.0047	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	02 Jul 2024	0356_SD065_240702	Normal	ES2422149	<0.0002	0.0095	0.0019	0.0114	0.0114	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	03 Jul 2024	0356_SD080_240703	Normal	ES2422144	<0.0002	0.0205	0.0014	0.0219	0.0219	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	04 Jul 2024	0356_SD114_240704	Normal	ES2422149	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	02 Jul 2024	0356_SD115_240702	Normal	ES2422149	<0.0002	0.0362	0.0009	0.0371	0.0371	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	04 Jul 2024	0356_SD116_240704	Normal	ES2422149	<0.0002	0.0016	0.0004	0.0020	0.0020	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	03 Jul 2024	0356_SD539_240703	Normal	ES2422146	<0.0002	0.0069	0.0004	0.0073	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	03 Jul 2024	0356_SD563_240703	Normal	ES2422146	0.0029	0.106	0.0012	0.107	0.117	<0.0002	<0.0002	0.0006	0.0006	<0.001	<0.0002	<0.0002	0.0003	0.0010	0.0008	0.0003	0.0003	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0021	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR

Table T8 - Historical Groundwater Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**											**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**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)**
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	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	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW008	15 May 2019	0356_CNN0018_GW08_190515	Normal	NSW_0356_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	21 Jul 2022	0356_MW008_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	02 Jul 2024	0356_MW008_240702	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	05 Oct 2018	CNN0018_GW02_181005	Normal	NSW_0356_PFAS		<0.05	*0.12*	0.3	**0.42**	0.42	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	0.48	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW011	28 Feb 2019	0356_CNN0018_GW02_190228	Normal	NSW_0356_PFAS		0.004	*0.029*	0.054	**0.083**	0.176	0.019	0.008	0.002	<0.002	<0.01	0.008	0.035	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.014	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW011	15 May 2019	0356_CNN0018_GW02_190515	Normal	NSW_0356_PFAS		<0.01	*0.03*	0.06	**0.09**	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	15 May 2019	0356_QC145_GW_190515	Field_D	NSW_0356_PFAS		<0.01	*0.03*	0.06	**0.09**	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	15 May 2019	0356_QC245_GW_190515	Field_D	NSW_0356_PFAS		<0.01	*0.03*	0.06	**0.09**	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	21 Jul 2022	0356_MW011_220721	Normal	NSW_0356_PFASOMP_22		<0.01	*0.02*	0.02	0.04	0.07	<0.02	<0.02	<0.02	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	02 Jul 2024	0356_MW011_240702	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.04	0.06	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	03 Oct 2018	0356_CNN0039_GW01_181003	Normal	NSW_0356_PFAS		0.03	*0.03*	2.17	**2.2**	2.23	0.17	0.24	<0.02	<0.02	<0.1	0.04	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	27 Feb 2019	0356_CNN0039_GW01_190227	Normal	NSW_0356_PFAS		0.042	*0.03*	2.68	**2.71**	3.96	0.293	0.461	0.017	<0.002	<0.01	0.067	0.299	0.051	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.016	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW048	10 May 2019	0356_CNN0039_GW01_190510	Normal	NSW_0356_PFAS		0.03	*0.02*	2.26	**2.28**	2.88	0.16	0.24	<0.02	<0.02	<0.1	<0.02	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_MW048_220721	Normal	NSW_0356_PFASOMP_22		0.05	*0.02*	2.26	**2.28**	3.14	0.15	0.31	<0.02	<0.02	<0.1	0.04	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_QC103_220721	Field_D	NSW_0356_PFASOMP_22		0.05	*0.02*	2.24	**2.26**	3.15	0.19	0.31	<0.02	<0.02	<0.1	0.06	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_QC203_220721	Interlab_D	NSW_0356_PFASOMP_22		0.06	*0.02*	2.6	**2.7**	3.6	0.21	0.31	0.02	<0.02	0.04	0.05	0.23	0.05	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW048	02 Jul 2024	0356_MW048_240702	Normal	NSW_0356_PFASOMP_24		0.08	*0.06*	3.04	**3.10**	4.31	0.20	0.40	0.03	<0.02	<0.1	0.07	0.31	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW049	03 Oct 2018	0356_CNN0039_GW02_181003	Normal	NSW_0356_PFAS		0.06	*1.12*	1.26	**2.38**	2.44	0.07	0.09	0.10	<0.02	<0.1	0.03	0.10	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW049	27 Feb 2019	0356_CNN0039_GW02_190227	Normal	NSW_0356_PFAS		0.169	*6.45*	3.97	**10.4**	11.9	0.204	0.316	0.339	<0.002	<0.01	0.057	0.360	0.048	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.030	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW049	10 May 2019	0356_CNN0039_GW02_190510	Normal	NSW_0356_PFAS		0.09	*2.13*	3.16	**5.29**	6.21	0.15	0.26	0.14	<0.02	<0.1	<0.02	0.25	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	07 May 2019	0356_CNN0039_GW03_190507	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	21 Jul 2022	0356_MW050_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	02 Jul 2024	0356_MW050_240702	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	10 May 2019	0356_CNN0039_GW05_190510	Normal	NSW_0356_PFAS		0.03	*0.42*	0.53	**0.95**	1.09	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	21 Jul 2022	0356_MW052_220721	Normal	NSW_0356_PFASOMP_22		0.02	*0.38*	0.28	**0.66**	0.79	<0.02	0.02	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	02 Jul 2024	0356_MW052_240702	Normal	NSW_0356_PFASOMP_24		0.03	*0.72*	0.62	**1.34**	1.53	0.02	0.03	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	08 May 2019	0356_GW12_190508	Normal	NSW_0356_PFAS		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	30 May 2019	0356_GW12_190530	Normal	NSW_0356_PFAS		<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	19 Jul 2023	0356_MW056_230719	Normal	NSW_0356_PFASOMP_23		<0.01	*0.12*	0.04	**0.16**	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_MW056_2310251125	Normal	NSW_0356_PFASOMP_23		<0.01	*0.09*	0.03	**0.12**	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_MW056_2310251200	Normal	NSW_0356_PFASOMP_23		<0.01	*0.06*	0.04	**0.10**	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_QC101_231025	Field_D	NSW_0356_PFASOMP_23		<0.01	*0.1*	0.03	**0.13**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	24 Jan 2024	0356_MW056_240124	Normal	NSW_0356_PFASOMP_24		<0.01	*0.08*	0.02	**0.10**	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	03 Jul 2024	0356_MW056_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.07*	0.02	**0.09**	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	08 May 2019	0356_HLG_GW03_190508	Normal	NSW_0356_PFAS		<0.01	*0.04*	0.04	**0.08**	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	21 Jul 2022	0356_MW059_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	02 Jul 2024	0356_MW059_240702	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	07 Feb 2019	0356_NSW1164_MW01D_19020	Normal	NSW_0356_PFAS		<0.05	*0.07*	<0.05	0.07	0.35	0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.23	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW063	09 May 2019	0356_NSW1164_MW01D_19050	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	19 Jul 2022	0356_MW063_220719	Normal	NSW_0356_PFASOMP_22		<0.01	*0.05*	<0.01	0.05	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.24	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_MW063_240704	Normal	NSW_0356_PFASOMP_24		<0.01	*0.05*	<0.01	0.05	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC105_240704	Field_D	NSW_0356_PFASOMP_24		<0.01	*0.05*	<0.01	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC205_240704	Interlab_D	NSW_0356_PFASOMP_24		<0.01	*0.04*	<0.01	0.04	0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW071	06 Feb 2019	0356_NSW1164_MW03D_19020	Normal	NSW_0356_PFAS		<0.05	*0.08*	<0.05	**0.08**	0.15	0.07	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW071	09 May 2019	0356_NSW1164_MW03D_19050	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW071	19 Jul 2022	0356_MW071_220719	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW071	04 Jul 2024	0356_MW071_240704	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	06 Feb 2019	0356_NSW1164_MW03S_19020	Normal	NSW_0356_PFAS		<0.01	*0.01*	<0.02	0.01	1.52	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	09 May 2019	0356_NSW1164_MW03S_19050	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	19 Jul 2022	0356_MW073_220719	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_MW073_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC106_240704	Field_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC206_240704	Interlab_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW102	06 May 2019	0356_GW02D_190506	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	08 May 2019	0356_GW02D_190508	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	20 Oct 2020	0356-GW-02D-201020	Normal	NSW_0356_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	21 Jul 2022	0356_MW102_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Jan 2023	0356_MW102_230118	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW102	18 Jan 2023	0356_QC104_230118	Field_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Jan 2023	0356_QC204_230118	Interlab_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW102	17 Jul 2023	0356_MW102_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	23 Jan 2024	0356_MW102_240123	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	02 Jul 2024	0356_MW102_240702	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	02 Jul 2024	0356_QC102_240702	Field_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	02 Jul 2024	0356_QC202_240702	Interlab_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW109	10 May 2019	0356_GW03D_190510	Normal	NSW_0356_PFAS		<0.01	*0.28*	<0.02	**0.28**	1.76	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	28 May 2019	0356_GW03D_190528	Normal	NSW_0356_PFAS		<0.01	*0.16*	<0.02	**0.16**	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	19 Oct 2020	0356_QC254_201020	Interlab_D	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW109	20 Oct 2020	0356-GW03D-201020	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	20 Oct 2020	0356-QC154-201020	Field_D	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	21 Jul 2022	0356_MW109_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	18 Jan 2023	0356_MW109_230118	Normal	NSW_0356_PFASOMP_23		<0.01	*0.06*	0.06	**0.12**	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	17 Jul 2023	0356_MW109_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_MW109_240123	Normal	NSW_0356_PFASOMP_24		<0.01	*0.05*	0.06	**0.11**	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_QC102_240123	Field_D	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_QC202_240123	Interlab_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW109	04 Jul 2024	0356_MW109_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	07 May 2019	0356_GW03S_190507	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.30	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.30	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	20 Oct 2020	0356-GW03S-201020	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	21 Jul 2022	0356_MW110_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	18 Jan 2023	0356_MW110_230118	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	17 Jul 2023	0356_MW110_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	23 Jan 2024	0356_MW110_240123	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	04 Jul 2024	0356_MW110_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	06 May 2019	0356_GW04D_190506	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	20 Oct 2020	0356-GW04D-201020	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	21 Jul 2022	0356_MW114_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	17 Jul 2023	0356_MW114_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	04 Jul 2024	0356_MW114_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	06 May 2019	0356_GW04S_190506	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	20 Oct 2020	0356-GW04S-201020	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	21 Jul 2022	0356_MW115_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	17 Jul 2023	0356_MW115_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	04 Jul 2024	0356_MW115_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	06 May 2019	0356_GW05S_190506	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	21 Jul 2022	0356_MW118_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_MW118_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_QC100_230717	Field_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_QC200_230717	Interlab_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW118	04 Jul 2024	0356_MW118_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	02 May 2019	0356_GW06_190502	Normal	NSW_0356_PFAS		0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	31 May 2019	0356_GW06_190531	Normal	NSW_0356_PFAS		0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	19 Oct 2020	0356_GW06_201019	Normal	NSW_0356_PFAS		0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_MW121_220722	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_QC106_220722	Field_D	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_QC206_220722	Interlab_D	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW121	19 Jul 2023	0356_MW121_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	03 Jul 2024	0356_MW121_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	02 May 2019	0356_GW07_190502	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	31 May 2019	0356_GW07_190531	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	19 Oct 2020	0356_GW07_201019	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	20 Jul 2022	0356_MW124_220720	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	0.07	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	19 Jul 2023	0356_MW124_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	03 Jul 2024	0356_MW124_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	03 May 2019	0356_GW08S_190503	Normal	NSW_0356_PFAS		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12
MW126	22 Jul 2022	0356_MW126_220722	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW126	18 Jul 2023	0356_MW126_230718	Normal	NSW_0356_PFASOMP_23		<0.01	*0.22*	0.02	**0.24**	0.24	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_MW126_2310250850	Normal	NSW_0356_PFASOMP_23		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_MW126_2310251035	Normal	NSW_0356_PFASOMP_23		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_QC100_231025	Field_D	NSW_0356_PFASOMP_23		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	24 Jan 2024	0356_MW126_240124	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	03 Jul 2024	0356_MW126_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	03 May 2019	0356_GW09S_190503	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	30 May 2019	0356_GW09S_190530	Normal	NSW_0356_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	22 Jul 2022	0356_MW128_220722	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	18 Jul 2023	0356_MW128_230718	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	03 Jul 2024	0356_MW128_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW129	03 May 2019	0356_GW10S_190503	Normal	NSW_0356_PFAS		<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW129	30 May 2019	0356_GW10S_190530	Normal	NSW_0356_PFAS		<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW132	06 Nov 2018	0356_RESI_GW011_181106	Normal	NSW_0356_PFAS		<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW132	07 May 2019	0356_RESI_GW011_190507	Normal	NSW_0356_PFAS		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW132	19 Jul 2022	0356_MW132_220719	Normal	NSW_0356_PFASOMP_22		<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	18 Dec 2018	0356_RESI_GW013_181218	Normal	NSW_0356_PFAS		0.02	*0.03*	0.08	**0.11**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	08 May 2019	0356_RESI_GW013_190508	Normal	NSW_0356_PFAS		<0.01	*0.03*	0.08	**0.11**	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	28 May 2020	0356_RESI_GW013_200528	Normal	NSW_0356_PFAS		0.02	*0.04*	0.06	**0.10**	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	18 Jul 2023	0356_MW139_230718	Normal	NSW_0356_PFASOMP_23		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	04 Jul 2024	0356_MW139_240704	Normal	NSW_0356_PFASOMP_24		0.01	*0.03*	0.01	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	02 Oct 2018	0356_CNN0230_GW01_181002	Normal	NSW_0356_PFAS		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW167	01 Mar 2019	0356_CNN0230_GW01_190301	Normal	NSW_0356_PFAS		<0.002	*0.012*	<0.002	0.012	0.360	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.348	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW167	15 May 2019	0356_CNN0230_GW01_190515	Normal	NSW_0356_PFAS		<0.01	*0.21*	0.02	**0.23**	0.74	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.51	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	21 Jul 2022	0356_MW167_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	02 Jul 2024	0356_MW167_240702	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	03 Sep 2020	0356_MW09D_200903	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	20 Jul 2022	0356_MW187D_220720	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	19 Jul 2023	0356_MW187D_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	03 Jul 2024	0356_MW187D_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_MW187S_220720	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_QC102_220720	Field_D	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_QC202_220720	Interlab_D	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW187S	19 Jul 2023	0356_MW187S_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	03 Jul 2024	0356_MW187S_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	03 Aug 2020	0356_QC251_200903	Interlab_D	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
MW188D	03 Aug 2020	QC251_200903	Interlab_D	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
MW188D	03 Sep 2020	0356_MW10D_200903	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	22 Jul 2022	0356_MW188D_220722	Normal	NSW_0356_PFASOMP_22		<0.01	*0.02*	<0.01	0.02	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	19 Jul 2023	0356_MW188D_230719	Normal	NSW_0356_PFASOMP_23		<0.01	*0.03*	<0.01	0.03	0.19	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	03 Jul 2024	0356_MW188D_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Sep 2020	0356_MW10S_200903	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Sep 2020	0356_QC151_200903	Field_D	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	22 Jul 2022	0356_MW188S_220722	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	19 Jul 2023	0356_MW188S_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Jul 2024	0356_MW188S_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T9 - Historical Surface Water Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					**10**			**2**																									
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																													
OTH006	03 Apr 2019	0356_OTH006_190403	Normal	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_OTH006_201019	Normal	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_QC152_201019	Field_D	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_QC252_201019	Interlab_D	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
OTH006	20 Jul 2022	0356_OTH006_220720	Normal	NSW_0356_PFASOMP_22	0.01	*0.12*	0.11	0.23	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	18 Jan 2023	0356_OTH006_230118	Normal	NSW_0356_PFASOMP_23	<0.01	*0.16*	0.04	0.20	0.20	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Jul 2023	0356_OTH006_230719	Normal	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	24 Jan 2024	0356_OTH006_240124	Normal	NSW_0356_PFASOMP_24	<0.01	*0.12*	0.03	0.15	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	03 Jul 2024	0356_OTH006_240703	Normal	NSW_0356_PFASOMP_24	<0.01	*0.07*	0.02	0.09	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	08 Oct 2018	0356_SW002_SW_181008	Normal	NSW_0356_PFAS	0.01	*0.33*	0.34	0.67	0.68	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	28 Feb 2019	0356_SW002_190228	Normal	NSW_0356_PFAS	0.007	*0.180*	0.210	0.390	0.465	0.013	0.011	0.005	<0.002	<0.01	0.009	0.026	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW002	24 Apr 2019	0356_SW002_190424	Normal	NSW_0356_PFAS	0.02	*0.31*	0.2	0.51	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	16 Apr 2020	0356_SW002_200416	Normal	NSW_0356_PFAS	<0.01	*0.26*	0.24	0.50	0.54	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_SW002_220721	Normal	NSW_0356_PFASOMP_22	0.01	*0.33*	0.24	0.57	0.65	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_QC104_220721	Field_D	NSW_0356_PFASOMP_22	0.01	*0.34*	0.21	0.55	0.60	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_QC204_220721	Interlab_D	NSW_0356_PFASOMP_22	0.01	*0.42*	0.24	0.66	0.76	0.02	0.02	0.01	<0.02	<0.02	<0.02	0.04	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	17 Jan 2023	0356_SW002_230117	Normal	NSW_0356_PFASOMP_23	0.05	*0.85*	0.81	1.66	2.13	0.05	0.07	0.04	<0.02	<0.1	0.04	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Jul 2023	0356_SW002_230717	Normal	NSW_0356_PFASOMP_23	0.07	*1.00*	1.20	**2.20**	2.61	0.03	0.07	0.03	<0.02	<0.1	0.03	0.15	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	23 Jan 2024	0356_SW002_240123	Normal	NSW_0356_PFASOMP_24	0.04	*0.78*	0.45	1.23	1.37	<0.02	<0.02	0.03	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	02 Jul 2024	0356_SW002_240702	Normal	NSW_0356_PFASOMP_24	0.05	*0.67*	0.99	1.66	2.02	0.03	0.06	0.04	<0.02	<0.1	0.04	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	30 Nov 2018	0356_SW003_181130	Normal	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Apr 2019	0356_SW003_190417	Normal	NSW_0356_PFAS	0.02	*0.24*	0.23	0.47	0.61	0.06	<0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	21 Jul 2022	0356_SW003_220721	Normal	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jan 2023	0356_SW003_230117	Normal	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_SW003_230717	Normal	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_QC102_230717	Field_D	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_QC202_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW003	23 Jan 2024	0356_SW003_240123	Normal	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	02 Jul 2024	0356_SW003_240724	Normal	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	30 Nov 2018	0356_SW004_181130	Normal	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	18 Apr 2019	0356_SW004_190418	Normal	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	18 Apr 2020	0356_SW004_200418	Normal	NSW_0356_PFAS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW004	19 Jul 2022	0356_SW004_220719	Normal	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	19 Jan 2023	0356_SW004_230119	Normal	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	19 Jul 2023	0356_SW004_230719	Normal	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_SW004_240704	Normal	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC103_240704	Field_D	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC203_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	30 Nov 2018	0356_SW005_181130	Normal	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	18 Apr 2019	0356_SW005_190418	Normal	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	18 Apr 2019	0356_QC241_SW_190418	Interlab_D	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	18 Apr 2020	0356_SW005_200418	Normal	NSW_0356_PFAS	<0.002	*0.009*	0.004	0.013	0.013	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW005	19 Jul 2022	0356_SW005_220719	Normal	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	19 Jul 2023	0356_SW005_230719	Normal	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	04 Jul 2024	0356_SW005_240704	Normal	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	08 Oct 2018	0356_SMA13_SW_181008	Normal	NSW_0356_PFAS	<0.01	*0.23*	0.12	0.35	0.35	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	24 Apr 2019	0356_SMA13_SW_190424	Normal	NSW_0356_PFAS	0.01	*0.24*	0.13	0.37	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	16 Apr 2020	0356_SMA13_200416	Normal	NSW_0356_PFAS	<0.01	*0.24*	0.11	0.35	0.35	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	16 Apr 2020	0356_QC101_200416	Field_D	NSW_0356_PFAS	<0.01	*0.27*	0.12	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	21 Jul 2022	0356_SW026_220721	Normal	NSW_0356_PFASOMP_22	0.02	*0.76*	0.44	1.20	1.38	0.06	0.03	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Jan 2023	0356_SW026_230117	Normal	NSW_0356_PFASOMP_23	0.02	*0.63*	0.28	0.91	1.08	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Jul 2023	0356_SW026_230717	Normal	NSW_0356_PFASOMP_23	<0.01	*0.33*	0.16	0.49	0.49	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	23 Jan 2024	0356_SW026_240123	Normal	NSW_0356_PFASOMP_24	0.02	*0.89*	0.32	1.21	1.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	02 Jul 2024	0356_SW026_240702	Normal	NSW_0356_PFASOMP_24	0.01	*0.45*	0.34	0.79	0.87	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	25 Oct 2018	0356_SWA7_SW_181025	Normal	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	25 Oct 2018	0356_QC134_SW_181025	Field_D	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	25 Oct 2018	0356_QC234_SW_181025	Interlab_D	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5

Table T9 - Historical Surface Water Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**										**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**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)**
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW028	17 Apr 2019	0356_SMA7_SW_190417	Normal	NSW_0356_PFAS		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	21 Jul 2022	0356_SW028_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	17 Jan 2023	0356_SW028_230117	Normal	NSW_0356_PFASOMP_23		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	17 Jan 2023	0356_QC101_230117	Field_D	NSW_0356_PFASOMP_23		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	17 Jan 2023	0356_QC201_230117	Interlab_D	NSW_0356_PFASOMP_23		<0.01	*0.01*	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	18 Jul 2023	0356_SW028_230718	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	18 Jul 2023	0356_QC103_230718	Field_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	18 Jul 2023	0356_QC203_230718	Interlab_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	23 Jan 2024	0356_SW028_240123	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	23 Jan 2024	0356_QC100_240123	Field_D	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	23 Jan 2024	0356_QC200_240123	Interlab_D	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	02 Jul 2024	0356_SW028_240702	Normal	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	22 Mar 2019	0356_SW032_190322	Normal	NSW_0356_PFAS		<0.01	*0.07*	0.02	0.09	0.09	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	21 Jul 2022	0356_SW032_220721	Normal	NSW_0356_PFASOMP_22		0.03	*0.86*	0.71	1.57	1.81	0.04	0.06	<0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	17 Jan 2023	0356_SW032_230117	Normal	NSW_0356_PFASOMP_23		0.08	*2.13*	1.69	**3.82**	4.85	0.17	0.21	0.07	<0.02	<0.1	0.06	0.40	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	17 Jul 2023	0356_SW032_230717	Normal	NSW_0356_PFASOMP_23		0.04	*2.02*	1.01	**3.03**	3.38	0.05	0.07	0.04	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	23 Jan 2024	0356_SW032_240123	Normal	NSW_0356_PFASOMP_24		<0.01	*0.32*	0.07	0.39	0.39	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_SW032_240702	Normal	NSW_0356_PFASOMP_24		<0.01	*0.43*	0.24	0.67	0.67	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_QC200_240702	Interlab_D	NSW_0356_PFASOMP_24		0.01	*0.36*	0.22	0.58	0.64	0.02	0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW034	30 Nov 2018	0356_SMA8_SW_181130	Normal	NSW_0356_PFAS		<0.01	*0.16*	0.09	0.25	0.32	0.03	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	08 Feb 2019	0356_SMA8_SW_190208	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	24 Apr 2019	0356_SMA8_SW_190424	Normal	NSW_0356_PFAS		<0.01	*0.21*	0.1	0.31	0.31	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	24 Apr 2020	0356_SMA8_200424	Normal	NSW_0356_PFAS		0.01	*0.43*	0.44	0.87	0.96	0.03	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	19 Oct 2020	0356_SMA8_201019	Normal	NSW_0356_PFAS		<0.01	*0.35*	0.36	0.71	0.81	0.03	0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	21 Jul 2022	0356_SW034_220721	Normal	NSW_0356_PFASOMP_22		0.01	*0.35*	0.24	0.59	0.64	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_SW034_230117	Normal	NSW_0356_PFASOMP_23		0.04	*1.35*	0.55	1.90	2.29	0.05	0.05	0.03	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_QC103_230117	Field_D	NSW_0356_PFASOMP_23		0.04	*1.33*	0.52	1.85	2.21	0.04	0.05	0.03	<0.02	<0.1	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_QC203_230117	Interlab_D	NSW_0356_PFASOMP_23		0.03	*1.1*	0.73	1.8	2.2	0.07	0.05	0.03	<0.02	<0.02	0.04	0.12	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW034	17 Jul 2023	0356_SW034_230717	Normal	NSW_0356_PFASOMP_23		0.02	*0.54*	0.39	0.93	1.06	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	09 Apr 2024	0356_SW034_20240409150(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.22*	0.28	0.50	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	13 Apr 2024	0356_SW034_20240413220(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.22*	0.25	0.47	0.50	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Apr 2024	0356_SW034_20240417230(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.27*	0.26	0.53	0.55	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	18 Apr 2024	0356_SW034_20240418000(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.28*	0.27	0.55	0.57	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	22 Apr 2024	0356_SW034_20240422130(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.18*	0.18	0.36	0.38	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_20240504184(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.17*	0.17	0.34	0.34	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_20240504203(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.23*	0.29	0.52	0.56	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_20240504231(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.24*	0.34	0.58	0.64	<0.02	0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	05 May 2024	0356_SW034_20240505020(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.23*	0.32	0.55	0.59	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_20240506084(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.27*	0.37	0.64	0.70	<0.02	0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_20240506094(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.28*	0.36	0.64	0.68	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_20240506104(	Normal	NSW_0356_PFASOMP_24		<0.01	*0.25*	0.35	0.60	0.66	<0.02	0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	02 Jul 2024	0356_SW034_240702	Normal	NSW_0356_PFASOMP_24		0.02	*0.61*	0.55	1.16	1.33	0.03	0.03	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	11 Apr 2019	0356_RESI_SW035_190411	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	11 Apr 2019	0356_QC140_190411	Field_D	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	19 Jul 2022	0356_SW035_220719	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Jan 2023	0356_SW035_230118	Normal	NSW_0356_PFASOMP_23		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Jul 2023	0356_SW035_230718	Normal	NSW_0356_PFASOMP_23		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	24 Jan 2024	0356_SW035_240124	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	03 Jul 2024	0356_SW035_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	11 Apr 2019	0356_RESI_SW036_190411	Normal	NSW_0356_PFAS		<0.01	*0.20*	0.09	0.29	0.29	<0.02	<0.02	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	19 Jul 2022	0356_SW036_220719	Normal	NSW_0356_PFASOMP_22		<0.01	*0.23*	0.15	0.38	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Jan 2023	0356_SW036_230118	Normal	NSW_0356_PFASOMP_23		0.03	*0.94*	0.58	1.52	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Jul 2023	0356_SW036_230718	Normal	NSW_0356_PFASOMP_23		0.02	*0.58*	0.37	0.95	1.11	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	24 Jan 2024	0356_SW036_240124	Normal	NSW_0356_PFASOMP_24		0.03	*0.79*	0.81	1.60	2.02	0.06	0.05	0.02	<0.02	<0.1	0.06	0.16	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	03 Jul 2024	0356_SW036_240724	Normal	NSW_0356_PFASOMP_24		0.01	*0.46*	0.36	0.82	0.93	0.02	0.03	<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	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	12 Apr 2019	0356_RESI_SW039_190412	Normal	NSW_0356_PFAS		0.02	*0.08*	<0.02	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						**10**			**2**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW039	12 Apr 2019	0356_QC240_190412	Interlab_D	NSW_0356_PFAS		0.02	*0.07*	<0.01	0.07	0.12	<0.01	<0.01	<0.01	<0.02	<0.02	0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW039	20 Apr 2020	0356-RESI-SW039-200420	Normal	NSW_0356_PFAS		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	20 Jul 2022	0356_SW039_220720	Normal	NSW_0356_PFASOMP_22		<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	18 Jan 2023	0356_SW039_230118	Normal	NSW_0356_PFASOMP_23		<0.01	*0.03*	0.01	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	18 Jul 2023	0356_SW039_230718	Normal	NSW_0356_PFASOMP_23		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	24 Jan 2024	0356_SW039_240124	Normal	NSW_0356_PFASOMP_24		<0.01	*0.03*	<0.01	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	03 Jul 2024	0356_SW039_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	07 May 2019	0356_SW040_190507	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	21 Jul 2022	0356_SW040_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	17 Jan 2023	0356_SW040_230117	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	18 Jul 2023	0356_SW040_230718	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	23 Jan 2024	0356_SW040_240123	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	04 Jul 2024	0356_SW040_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	17 Apr 2019	0356_RESI_SW041_190417	Normal	NSW_0356_PFAS		0.02	*0.02*	<0.02	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	17 Apr 2019	0356_QC141_190417	Field_D	NSW_0356_PFAS		0.01	*0.02*	<0.02	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	22 Apr 2020	0356_RESI_SW041_200422	Normal	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	22 Apr 2020	0356_QC204_200422	Interlab_D	NSW_0356_PFAS		<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	0.03	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW064	20 Jul 2022	0356_SW064_220720	Normal	NSW_0356_PFASOMP_22		<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	18 Jan 2023	0356_SW064_230118	Normal	NSW_0356_PFASOMP_23		0.02	*0.06*	0.02	0.08	0.33	0.09	<0.02	<0.02	<0.02	<0.1	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	19 Jul 2023	0356_SW064_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	24 Jan 2024	0356_SW064_240124	Normal	NSW_0356_PFASOMP_24		<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	03 Jul 2024	0356_SW064_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	17 Apr 2019	0356_RESI_SW042_190417	Normal	NSW_0356_PFAS		0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_SW065_220720	Normal	NSW_0356_PFASOMP_22		<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_QC101_220720	Field_D	NSW_0356_PFASOMP_22		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_QC201_220720	Interlab_D	NSW_0356_PFASOMP_22		<0.01	*0.02*	0.02	0.05	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW065	18 Jan 2023	0356_SW065_230118	Normal	NSW_0356_PFASOMP_23		<0.01	*0.03*	<0.01	0.03	0.11	0.05	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_SW065_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_QC105_230719	Field_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_QC205_230719	Interlab_D	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW065	24 Jan 2024	0356_SW065_240124	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	03 Jul 2024	0356_SW065_240703	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW114	21 Jul 2022	0356_SW114_220721	Normal	NSW_0356_PFASOMP_22		<0.01	*0.01*	<0.01	0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW114	04 Jul 2024	0356_SW114_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW115	21 Jul 2022	0356_SW115_220721	Normal	NSW_0356_PFASOMP_22		0.01	*0.49*	0.33	0.82	0.86	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW115	02 Jul 2024	0356_SW115_240702	Normal	NSW_0356_PFASOMP_24		0.03	*0.85*	0.68	1.53	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW116	21 Jul 2022	0356_SW116_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW116	04 Jul 2024	0356_SW116_240704	Normal	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Oct 2020	0356_SW553_201019	Normal	NSW_0356_PFAS		0.01	*0.25*	0.28	0.53	0.65	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	20 Jul 2022	0356_SW553_220720	Normal	NSW_0356_PFASOMP_22		<0.01	*0.08*	0.07	0.15	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	18 Jan 2023	0356_SW553_230118	Normal	NSW_0356_PFASOMP_23		0.01	*0.30*	0.20	0.50	0.73	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Jul 2023	0356_SW553_230719	Normal	NSW_0356_PFASOMP_23		0.01	*0.22*	0.27	0.49	0.56	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	03 Jul 2024	0356_SW553_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.11*	0.14	0.25	0.25	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	21 Jul 2022	0356_SW555_220721	Normal	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	17 Jul 2023	0356_SW555_230717	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	23 Jan 2024	0356_SW555_240123	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	19 Jul 2023	0356_SW563_230719	Normal	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	24 Jan 2024	0356_SW563_240124	Normal	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	03 Jul 2024	0356_SW563_240703	Normal	NSW_0356_PFASOMP_24		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR Limit of Reporting
Normal Primary sample
Field_D Intra-laboratory duplicate sample
Interlab_D Inter-laboratory duplicate sample

Table T10 - Historical Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																							
SD002	08 Oct 2018	0356_SD002_181008	Normal	NSW_0356_PFAS	<0.0002	0.0024	0.0004	0.0028	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	28 Feb 2019	0356_SD002_190228	Normal	NSW_0356_PFAS	<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	24 Apr 2019	0356_SD002_190424	Normal	NSW_0356_PFAS	<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	16 Apr 2020	0356_SD002_200416	Normal	NSW_0356_PFAS	<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	21 Jul 2022	0356_SD002_220721	Normal	NSW_0356_PFASOMP_22	0.0002	0.0428	0.0018	0.0446	0.0448	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	21 Jul 2022	0356_QC105_220721	Field_D	NSW_0356_PFASOMP_22	0.0002	0.0345	0.0017	0.0362	0.0372	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	21 Jul 2022	0356_QC205_220721	Interlab_D	NSW_0356_PFASOMP_22	<0.0001	0.037	0.0017	0.039	0.04	<0.0001	<0.0001	0.0002	0.0003	0.0002	0.0002	0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD002	17 Jan 2023	0356_SD002_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0060	0.0018	0.0078	0.0088	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	17 Jul 2023	0356_SD002_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0013	0.0003	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	23 Jan 2024	0356_SD002_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0038	0.0005	0.0043	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD002	02 Jul 2024	0356_SD002_240702	Normal	NSW_0356_PFASOMP_24	0.0002	0.0087	0.0016	0.0103	0.0110	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	05 Oct 2018	0356_SD003_181005	Normal	NSW_0356_PFAS	<0.0002	0.0009	<0.0002	0.0009	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	28 Feb 2019	0356_SD003_190228	Normal	NSW_0356_PFAS	<0.0002	0.0013	<0.0002	0.0013	0.0013	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	17 Apr 2019	0356_SD003_190417	Normal	NSW_0356_PFAS	<0.0002	0.0334	0.0035	0.0369	0.0386	0.0002	<0.0002	<0.0002	0.0004	<0.001	0.0003	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	21 Jul 2022	0356_SD003_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0026	<0.0002	0.0026	0.0026	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	17 Jan 2023	0356_SD003_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	17 Jul 2023	0356_SD003_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	17 Jul 2023	0356_QC101_230717	Field_D	NSW_0356_PFASOMP_23	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	17 Jul 2023	0356_QC201_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.0001	0.0032	0.0002	0.0034	0.0034	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0005	<0.005	<0.002	<0.002	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD003	23 Jan 2024	0356_SD003_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	23 Jan 2024	0356_QC104_240123	Field_D	NSW_0356_PFASOMP_24	<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD003	23 Jan 2024	0356_QC204_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.0001	0.0011	<0.0001	0.0011	0.0011	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD003	02 Jul 2024	0356_SD003_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0045	0.0006	0.0051	0.0053	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	12 Oct 2018	0356_SD004_181012	Normal	NSW_0356_PFAS	<0.0002	0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	17 Jan 2019	0356_NSW1164_SD004_190117	Normal	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	05 Mar 2019	0356_SD004_190305	Normal	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	18 Apr 2019	0356_SD004_190418	Normal	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	18 Apr 2020	0356_SD004_200418	Normal	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	19 Jul 2022	0356_SD004_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	19 Jan 2023	0356_SD004_230119	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	19 Jul 2023	0356_SD004_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	24 Jan 2024	0356_SD004_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	04 Jul 2024	0356_SD004_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	04 Jul 2024	0356_QC104_240704	Field_D	NSW_0356_PFASOMP_24	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.0001	0.0002	<0.0001	0.0002	0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD005	12 Oct 2018	0356_SD005_181012	Normal	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	18 Jan 2019	0356_NSW1164_SD005_190118	Normal	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	18 Jan 2019	0356_SD_QC100_190118	Field_D	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	18 Jan 2019	0356_SD_QC200_190118	Interlab_D	NSW_0356_PFAS	<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001
SD005	05 Mar 2019	0356_SD005_190305	Normal	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	18 Apr 2019	0356_SD005_190418	Normal	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	18 Apr 2019	0356_QC241_SD_190418	Interlab_D	NSW_0356_PFAS	<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001
SD005	18 Apr 2020	0356_SD005_200418	Normal	NSW_0356_PFAS	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	19 Jul 2022	0356_SD005_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0018	<0.0002	0.0018	0.0018	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	19 Jan 2023	0356_SD005_230119	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	19 Jul 2023	0356_SD005_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	24 Jan 2024	0356_SD005_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	04 Jul 2024	0356_SD005_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	22 Mar 2019	0356_SD032_190322	Normal	NSW_0356_PFAS	<0.0002	0.0006	<0.0002	0.0006	0.0006	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	21 Jul 2022	0356_SD032_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0044	0.0007	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	17 Jan 2023	0356_SD032_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	17 Jul 2023	0356_SD032_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	23 Jan 2024	0356_SD032_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0044	0.0002	0.0046	0.0046	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Table T10 - Historical Sediment Analytical Results

					PFAS - Perfluoroalkyl Sulfonamides						
					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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD002	08 Oct 2018	0356_SD002_181008	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	28 Feb 2019	0356_SD002_190228	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	24 Apr 2019	0356_SD002_190424	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	16 Apr 2020	0356_SD002_200416	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_SD002_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_QC105_220721	Field_D	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_QC205_220721	Interlab_D	NSW_0356_PFASOMP_22	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD002	17 Jan 2023	0356_SD002_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	17 Jul 2023	0356_SD002_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	23 Jan 2024	0356_SD002_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	02 Jul 2024	0356_SD002_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	05 Oct 2018	0356_SD003_181005	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	28 Feb 2019	0356_SD003_190228	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Apr 2019	0356_SD003_190417	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	21 Jul 2022	0356_SD003_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jan 2023	0356_SD003_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_SD003_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_QC101_230717	Field_D	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_QC201_230717	Interlab_D	NSW_0356_PFASOMP_23	<0.002	<0.005	<0.0002	<0.01	<0.001	<0.0004	<0.005
SD003	23 Jan 2024	0356_SD003_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	23 Jan 2024	0356_QC104_240123	Field_D	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	23 Jan 2024	0356_QC204_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD003	02 Jul 2024	0356_SD003_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	12 Oct 2018	0356_SD004_181012	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	17 Jan 2019	0356_NSW1164_SD004_190117	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	05 Mar 2019	0356_SD004_190305	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	18 Apr 2019	0356_SD004_190418	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	18 Apr 2020	0356_SD004_200418	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jul 2022	0356_SD004_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jan 2023	0356_SD004_230119	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jul 2023	0356_SD004_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	24 Jan 2024	0356_SD004_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_SD004_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC104_240704	Field_D	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	NSW_0356_PFASOMP_24	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD005	12 Oct 2018	0356_SD005_181012	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_NSW1164_SD005_190118	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_SD_QC100_190118	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_SD_QC200_190118	Interlab_D	NSW_0356_PFAS	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD005	05 Mar 2019	0356_SD005_190305	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Apr 2019	0356_SD005_190418	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Apr 2019	0356_QC241_SD_190418	Interlab_D	NSW_0356_PFAS	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD005	18 Apr 2020	0356_SD005_200418	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jul 2022	0356_SD005_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jan 2023	0356_SD005_230119	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jul 2023	0356_SD005_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	24 Jan 2024	0356_SD005_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	04 Jul 2024	0356_SD005_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	22 Mar 2019	0356_SD032_190322	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	21 Jul 2022	0356_SD032_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	17 Jan 2023	0356_SD032_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	17 Jul 2023	0356_SD032_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	23 Jan 2024	0356_SD032_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T10 - Historical Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																								
SD032	02 Jul 2024	0356_SD032_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0040	0.0005	0.0045	0.0048	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	02 Jul 2024	0356_QC101_240702	Field_D	NSW_0356_PFASOMP_24	<0.0002	0.0054	0.0006	0.0060	0.0063	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	02 Jul 2024	0356_QC201_240702	Interlab_D	NSW_0356_PFASOMP_24	<0.0001	0.0038	0.0006	0.0044	0.0047	<0.0001	<0.0001	<0.0001	0.0003	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD039	12 Apr 2019	0356_RESI_SD039_190412	Normal	NSW_0356_PFAS	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD039	12 Apr 2019	0356_QC240_190412	Interlab_D	NSW_0356_PFAS	0.0002	0.0019	<0.0001	0.0019	0.002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
SD039	20 Apr 2020	0356_RESI_SD039_200420	Normal	NSW_0356_PFAS	0.0003	0.0036	<0.0002	0.0036	0.0039	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD039	20 Jul 2022	0356_SD039_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0038	<0.0002	0.0038	0.0038	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD039	18 Jan 2023	0356_SD039_230118	Normal	NSW_0356_PFASOMP_23	<0.0010	0.0029	<0.0010	0.0029	0.0029	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010
SD039	18 Jul 2023	0356_SD039_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD039	24 Jan 2024	0356_SD039_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0036	<0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD039	03 Jul 2024	0356_SD039_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0040	<0.0002	0.0040	0.0040	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	07 May 2019	0356_SD040_190507	Normal	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	21 Jul 2022	0356_SD040_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	17 Jan 2023	0356_SD040_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	18 Jul 2023	0356_SD040_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.0020	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	23 Jan 2024	0356_SD040_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD040	04 Jul 2024	0356_SD040_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	17 Apr 2019	0356_RESI_SD041_190417	Normal	NSW_0356_PFAS	<0.0002	0.0034	<0.0002	0.0034	0.0034	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	17 Apr 2019	0356_QC141_190417	Field_D	NSW_0356_PFAS	<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	22 Apr 2020	0356_RESI_SD041_200422	Normal	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	22 Apr 2020	0356_QC203_200422	Interlab_D	NSW_0356_PFAS	<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0004	<0.0004	<0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.01	<0.0002	<0.0002	<0.0002	<0.0002
SD046	20 Jul 2022	0356_SD046_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0034	0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	18 Jan 2023	0356_SD046_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	19 Jul 2023	0356_SD046_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	24 Jan 2024	0356_SD046_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0070	<0.0002	0.0070	0.0070	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD046	03 Jul 2024	0356_SD046_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	17 Apr 2019	0356_RESI_SD042_190417	Normal	NSW_0356_PFAS	<0.0002	0.0047	<0.0002	0.0047	0.0049	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	20 Jul 2022	0356_SD047_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0075	<0.0002	0.0075	0.0075	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	20 Jul 2022	0356_QC100_220720	Field_D	NSW_0356_PFASOMP_22	0.0002	0.0081	0.0002	0.0083	0.0085	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	20 Jul 2022	0356_QC200_220720	Interlab_D	NSW_0356_PFASOMP_22	0.0002	0.0094	0.0002	0.0096	0.0099	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD047	18 Jan 2023	0356_SD047_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0048	0.0003	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	19 Jul 2023	0356_SD047_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	24 Jan 2024	0356_SD047_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD047	03 Jul 2024	0356_SD047_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	11 Apr 2019	0356_RESI_SD035_190411	Normal	NSW_0356_PFAS	<0.0002	0.0012	0.0003	0.0015	0.0015	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	11 Apr 2019	0356_QC140_190411	Field_D	NSW_0356_PFAS	<0.0002	0.0017	0.0003	0.0020	0.0020	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	19 Jul 2022	0356_SD052_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0009	<0.0002	0.0009	0.0019	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	18 Jan 2023	0356_SD052_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	18 Jul 2023	0356_SD052_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	24 Jan 2024	0356_SD052_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD052	03 Jul 2024	0356_SD052_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	08 Oct 2018	0356_SMA13_SD_181008	Normal	NSW_0356_PFAS	<0.0002	0.0020	<0.0002	0.0020	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	28 Feb 2019	0356_SMA13__SD_190228	Normal	NSW_0356_PFAS	<0.0002	0.0226	0.0011	0.0237	0.0237	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	24 Apr 2019	0356_SMA13_SD_190424	Normal	NSW_0356_PFAS	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	16 Apr 2020	0356_SMA13_SD_200416	Normal	NSW_0356_PFAS	<0.0002	0.0118	<0.0002	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	16 Apr 2020	0356_QC102_200416	Field_D	NSW_0356_PFAS	<0.0002	0.0613	0.0004	0.0617	0.0617	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	21 Jul 2022	0356_SD053_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0043	0.0002	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	17 Jan 2023	0356_SD053_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0051	0.0004	0.0055	0.0055	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	17 Jul 2023	0356_SD053_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0017	<0.0002	0.0017	0.0017	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	23 Jan 2024	0356_SD053_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0016	0.0002	0.0018	0.0018	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD053	02 Jul 2024	0356_SD053_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0050	0.0005	0.0055	0.0055	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD055	25 Oct 2018	0356_SMA7_SD_181025	Normal	NSW_0356_PFAS	<0.0002	0.0048	0.0006	0.0054	-	<0.0002	<0.0002	<0.0002	0.0017	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS	<0.0002	0.0053	0.0004	0.0057	-	<0.0002	<0.0002	<0.0002	0.0018	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

					PFAS - Perfluoroalkyl Sulfonamides						
					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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD032	02 Jul 2024	0356_SD032_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	02 Jul 2024	0356_QC101_240702	Field_D	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	02 Jul 2024	0356_QC201_240702	Interlab_D	NSW_0356_PFASOMP_24	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD039	12 Apr 2019	0356_RESI_SD039_190412	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	12 Apr 2019	0356_QC240_190412	Interlab_D	NSW_0356_PFAS	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD039	20 Apr 2020	0356_RESI_SD039_200420	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	20 Jul 2022	0356_SD039_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	18 Jan 2023	0356_SD039_230118	Normal	NSW_0356_PFASOMP_23	<0.0010	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025
SD039	18 Jul 2023	0356_SD039_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	24 Jan 2024	0356_SD039_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	03 Jul 2024	0356_SD039_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	07 May 2019	0356_SD040_190507	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	21 Jul 2022	0356_SD040_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	17 Jan 2023	0356_SD040_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	18 Jul 2023	0356_SD040_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	23 Jan 2024	0356_SD040_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	04 Jul 2024	0356_SD040_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	17 Apr 2019	0356_RESI_SD041_190417	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	17 Apr 2019	0356_QC141_190417	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	22 Apr 2020	0356_RESI_SD041_200422	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	22 Apr 2020	0356_QC203_200422	Interlab_D	NSW_0356_PFAS	<0.002	<0.002	<0.0004	<0.002	<0.002	<0.0004	<0.01
SD046	20 Jul 2022	0356_SD046_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	18 Jan 2023	0356_SD046_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	19 Jul 2023	0356_SD046_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	24 Jan 2024	0356_SD046_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	03 Jul 2024	0356_SD046_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	17 Apr 2019	0356_RESI_SD042_190417	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_SD047_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_QC100_220720	Field_D	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_QC200_220720	Interlab_D	NSW_0356_PFASOMP_22	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD047	18 Jan 2023	0356_SD047_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	19 Jul 2023	0356_SD047_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	24 Jan 2024	0356_SD047_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	03 Jul 2024	0356_SD047_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	11 Apr 2019	0356_RESI_SD035_190411	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	11 Apr 2019	0356_QC140_190411	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	19 Jul 2022	0356_SD052_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Jan 2023	0356_SD052_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Jul 2023	0356_SD052_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	24 Jan 2024	0356_SD052_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	03 Jul 2024	0356_SD052_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	08 Oct 2018	0356_SMA13_SD_181008	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	28 Feb 2019	0356_SMA13__SD_190228	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	24 Apr 2019	0356_SMA13_SD_190424	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	16 Apr 2020	0356_SMA13_SD_200416	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	16 Apr 2020	0356_QC102_200416	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	21 Jul 2022	0356_SD053_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Jan 2023	0356_SD053_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Jul 2023	0356_SD053_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	23 Jan 2024	0356_SD053_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	02 Jul 2024	0356_SD053_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_SMA7_SD_181025	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T10 - Historical Sediment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																								
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS		<0.0002	0.0012	<0.0002	0.0012	-	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD055	25 Oct 2018	0356_QC234_SD_181025	Interlab_D	NSW_0356_PFAS		<0.0002	0.0027	<0.0002	0.0027	0.0057	<0.0002	<0.0002	<0.0002	0.0030	<0.0004	<0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.01	<0.0002	<0.0002	<0.0002	<0.0002
SD055	28 Feb 2019	0356_SMA7__SD_190228	Normal	NSW_0356_PFAS		<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD055	17 Apr 2019	0356_SMA7_SD_190417	Normal	NSW_0356_PFAS		<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD055	21 Jul 2022	0356_SD055_220721	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0026	0.0003	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD055	17 Jan 2023	0356_SD055_230117	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0020	<0.0002	0.0020	0.0038	<0.0002	<0.0002	<0.0002	0.0018	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD055	17 Jan 2023	0356_QC100_230117	Field_D	NSW_0356_PFASOMP_23		<0.0002	0.0034	<0.0002	0.0034	0.0064	<0.0002	<0.0002	<0.0002	0.0028	<0.001	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD055	17 Jan 2023	0356_QC200_230117	Interlab_D	NSW_0356_PFASOMP_23		<0.0001	0.0020	<0.0001	0.0020	0.0030	<0.0001	<0.0001	<0.0001	0.001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD055	18 Jul 2023	0356_SD055_230718	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0009	<0.0002	0.0009	0.0013	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD055	18 Jul 2023	0356_QC104_230718	Field_D	NSW_0356_PFASOMP_23		<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD055	18 Jul 2023	0356_QC204_230718	Interlab_D	NSW_0356_PFASOMP_23		<0.0001	0.0009	<0.0001	0.0009	0.0009	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD055	23 Jan 2024	0356_SD055_240123	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0050	<0.0002	0.0050	0.0067	<0.0002	<0.0002	<0.0002	0.0014	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD055	23 Jan 2024	0356_QC101_240123	Field_D	NSW_0356_PFASOMP_24		<0.0002	0.0049	<0.0002	0.0049	0.0065	<0.0002	<0.0002	<0.0002	0.0013	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD055	23 Jan 2024	0356_QC201_240123	Interlab_D	NSW_0356_PFASOMP_24		<0.0001	0.0030	<0.0001	0.0030	0.0049	<0.0001	<0.0001	<0.0001	0.002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD055	02 Jul 2024	0356_SD055_240702	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0039	0.0004	0.0043	0.0047	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD065	08 Oct 2018	0356_SMA8_SD_181008	Normal	NSW_0356_PFAS		<0.0002	0.0024	<0.0002	0.0024	-	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	28 Feb 2019	0356_SMA8_SD_190228	Normal	NSW_0356_PFAS		<0.0002	0.0066	0.0005	0.0071	0.0071	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	24 Apr 2019	0356_SMA8_SD_190424	Normal	NSW_0356_PFAS		<0.0002	0.0048	0.0004	0.0052	0.0052	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	21 Jul 2022	0356_SD065_220721	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	17 Jan 2023	0356_SD065_230117	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0006	<0.0002	0.0006	0.0006	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	17 Jan 2023	0356_QC102_230117	Field_D	NSW_0356_PFASOMP_23		<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	17 Jan 2023	0356_QC202_230117	Interlab_D	NSW_0356_PFASOMP_23		<0.0001	0.0006	0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD065	17 Jul 2023	0356_SD065_230717	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	23 Jan 2024	0356_SD065_240123	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0064	0.0007	0.0071	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD065	02 Jul 2024	0356_SD065_240702	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0095	0.0019	0.0114	0.0114	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	16 Nov 2018	0356_RESI_SD013_181116	Normal	NSW_0356_PFAS		<0.0002	0.0135	0.0024	0.0159	-	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	20 Apr 2020	0356_RESI_SD013_200420	Normal	NSW_0356_PFAS		<0.0002	0.0111	0.0013	0.0124	0.0124	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	20 Apr 2020	0356_QC103_200420	Field_D	NSW_0356_PFAS		<0.0002	0.0118	0.0014	0.0132	0.0132	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	19 Jul 2022	0356_SD080_220719	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0010	<0.0002	0.0010	0.0010	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	18 Jan 2023	0356_SD080_230118	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0189	0.0021	0.0210	0.0213	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD080	18 Jul 2023	0356_SD080_230718	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0235	0.0018	0.0253	0.0253	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	24 Jan 2024	0356_SD080_240124	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0045	0.0003	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD080	03 Jul 2024	0356_SD080_240703	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0205	0.0014	0.0219	0.0219	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD114	21 Jul 2022	0356_SD114_220721	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD114	17 Jan 2023	0356_SD114_230117	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0023	<0.0002	0.0023	0.0023	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD114	17 Jul 2023	0356_SD114_230717	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0011	<0.0002	0.0011	0.0011	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD114	23 Jan 2024	0356_SD114_240123	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0092	0.0002	0.0094	0.0094	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD114	04 Jul 2024	0356_SD114_240704	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD115	21 Jul 2022	0356_SD115_220721	Normal	NSW_0356_PFASOMP_22		0.0002	0.0457	0.0023	0.0480	0.0496	<0.0002	<0.0002	<0.0002	0.0010	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD115	17 Jan 2023	0356_SD115_230117	Normal	NSW_0356_PFASOMP_23		0.0003	0.0351	0.0023	0.0374	0.0391	<0.0002	<0.0002	<0.0002	0.0007	<0.001	0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD115	17 Jul 2023	0356_SD115_230717	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0226	0.0013	0.0239	0.0242	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD115	23 Jan 2024	0356_SD115_240123	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0114	0.0012	0.0126	0.0129	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SD115	02 Jul 2024	0356_SD115_240702	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0362	0.0009	0.0371	0.0371	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD116	21 Jul 2022	0356_SD116_220721	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD116	17 Jan 2023	0356_SD116_230117	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD116	17 Jul 2023	0356_SD116_230717	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD116	23 Jan 2024	0356_SD116_240123	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0046	0.0002	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD116	04 Jul 2024	0356_SD116_240704	Normal	NSW_0356_PFASOMP_24		<0.0002	0.0016	0.0004	0.0020	0.0020	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD539	19 Oct 2020	0356_SD539_201019	Normal	NSW_0356_PFAS		<0.0002	0.0088	0.0008	0.0096	0.0096	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD539	20 Jul 2022	0356_SD539_220720	Normal	NSW_0356_PFASOMP_22		<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD539	18 Jan 2023	0356_SD539_230118	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0112	0.0004	0.0116	0.0116	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD539	19 Jul 2023	0356_SD539_230719	Normal	NSW_0356_PFASOMP_23		<0.0002	0.0052	0.0002	0.0054	0.0054	<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	<0.0005	<0.0005	<0.0005	<0.0005
SD539	24 Jan 2024	0356_SD539_240124	Normal	NSW_0356_PFASOMP_24		0.0002	0.0244	0.0053	0.0297	0.0307	<0.0002	0.0002	0.0002	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005

					PFAS - Perfluoroalkyl Sulfonamides						
					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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_QC234_SD_181025	Interlab_D	NSW_0356_PFAS	<0.002	<0.002	<0.0004	<0.002	<0.002	<0.0004	<0.01
SD055	28 Feb 2019	0356_SMA7__SD_190228	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Apr 2019	0356_SMA7_SD_190417	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	21 Jul 2022	0356_SD055_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Jan 2023	0356_SD055_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Jan 2023	0356_QC100_230117	Field_D	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Jan 2023	0356_QC200_230117	Interlab_D	NSW_0356_PFASOMP_23	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD055	18 Jul 2023	0356_SD055_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	18 Jul 2023	0356_QC104_230718	Field_D	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	18 Jul 2023	0356_QC204_230718	Interlab_D	NSW_0356_PFASOMP_23	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD055	23 Jan 2024	0356_SD055_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	23 Jan 2024	0356_QC101_240123	Field_D	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	23 Jan 2024	0356_QC201_240123	Interlab_D	NSW_0356_PFASOMP_24	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD055	02 Jul 2024	0356_SD055_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	08 Oct 2018	0356_SMA8_SD_181008	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	28 Feb 2019	0356_SMA8_SD_190228	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	24 Apr 2019	0356_SMA8_SD_190424	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	21 Jul 2022	0356_SD065_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_SD065_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_QC102_230117	Field_D	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_QC202_230117	Interlab_D	NSW_0356_PFASOMP_23	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD065	17 Jul 2023	0356_SD065_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	23 Jan 2024	0356_SD065_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	02 Jul 2024	0356_SD065_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	16 Nov 2018	0356_RESI_SD013_181116	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	20 Apr 2020	0356_RESI_SD013_200420	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	20 Apr 2020	0356_QC103_200420	Field_D	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	19 Jul 2022	0356_SD080_220719	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Jan 2023	0356_SD080_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Jul 2023	0356_SD080_230718	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	24 Jan 2024	0356_SD080_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	03 Jul 2024	0356_SD080_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	21 Jul 2022	0356_SD114_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	17 Jan 2023	0356_SD114_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	17 Jul 2023	0356_SD114_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	23 Jan 2024	0356_SD114_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	04 Jul 2024	0356_SD114_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	21 Jul 2022	0356_SD115_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Jan 2023	0356_SD115_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Jul 2023	0356_SD115_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	23 Jan 2024	0356_SD115_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	02 Jul 2024	0356_SD115_240702	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	21 Jul 2022	0356_SD116_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	17 Jan 2023	0356_SD116_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	17 Jul 2023	0356_SD116_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	23 Jan 2024	0356_SD116_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	04 Jul 2024	0356_SD116_240704	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Oct 2020	0356_SD539_201019	Normal	NSW_0356_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	20 Jul 2022	0356_SD539_220720	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	18 Jan 2023	0356_SD539_230118	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Jul 2023	0356_SD539_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	24 Jan 2024	0356_SD539_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T10 - Historical Sediment Analytical Results

				PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																						
SD539	03 Jul 2024	0356_SD539_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0069	0.0004	0.0073	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD555	21 Jul 2022	0356_SD555_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD555	17 Jan 2023	0356_SD555_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0011	0.0002	0.0013	0.0013	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD555	17 Jul 2023	0356_SD555_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD555	23 Jan 2024	0356_SD555_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	0.0046	<0.0002	0.0046	0.0046	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD563	19 Jul 2023	0356_SD563_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	0.0044	<0.0002	0.0044	0.0044	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD563	24 Jan 2024	0356_SD563_240124	Normal	NSW_0356_PFASOMP_24	0.0002	0.0168	<0.0002	0.0168	0.0170	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD563	03 Jul 2024	0356_SD563_240703	Normal	NSW_0356_PFASOMP_24	0.0029	0.106	0.0012	0.107	0.117	<0.0002	<0.0002	0.0006	0.0006	<0.001	<0.0002	<0.0002	0.0003	0.0010	0.0008	0.0003	0.0003	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T10 - Historical Sediment Analytical Results

					PFAS - Perfluoroalkyl Sulfonamides						
					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)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD539	03 Jul 2024	0356_SD539_240703	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	21 Jul 2022	0356_SD555_220721	Normal	NSW_0356_PFASOMP_22	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	17 Jan 2023	0356_SD555_230117	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	17 Jul 2023	0356_SD555_230717	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	23 Jan 2024	0356_SD555_240123	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	19 Jul 2023	0356_SD563_230719	Normal	NSW_0356_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	24 Jan 2024	0356_SD563_240124	Normal	NSW_0356_PFASOMP_24	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	03 Jul 2024	0356_SD563_240703	Normal	NSW_0356_PFASOMP_24	0.0021	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Appendix C

Calibration Certificates

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration
Interface Meter
Heron H.Oil

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	[redacted]
Contact Name	[redacted]
Instrument	Heron H.Oil Interface Meter (30m)
Serial Number	01-8814
Client Name	[redacted] (AECOM Australia Pty Ltd)
Project Number	60612562_8.1

Instrument Check			
Item	Test	Test Passed	Comments
9V Battery	Klein Tools MM300 Multimeter	✓	Battery voltage reading above 7.9V
Battery Box	Check	✓	No damage
Face and Back Plates	Check	✓	No damage
Thumb Screws	Check	✓	Rubber ends intact
Tape Hangar/Protector	Check	✓	No damage
On/Off Button	Operation	✓	Button is functional
Buzzer	Operation	✓	Intermittent tone in H_2O, solid tone in product
LED Signal Light	Operation	✓	LED light functional – green and red
Probe	Operation/Check	✓	Decontaminated, cleaned and tested
Tape	Condition/Check	✓	Decontaminated and cleaned, no damage
Connection	Check	✓	Probe and link connected correctly and tightly
PCB	Operation	✓	Unit is fully functional
Electronics Panel	Orientation	✓	Correctly aligned

Instrument Readings		
Product	Buzzer	LED Light
H_2O	Intermittent	Blinking – Red
Petroleum	Solid	Steady – Red

Declaration
WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The interface meter was decontaminated, cleaned and tested with a mixture of tap water and petrol, shielded from ambient light.

Checked By	[redacted]
Calibration Date	27/06/2024
Calibration Due	27/12/2024

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Your water and air monitoring equipment specialists

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WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration
Water Quality Meter
YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	[redacted]
Contact Name	[redacted]
Instrument	YSI Pro Quatro Water Quality Meter w/ 1m Quatro Cable
Serial Number	23A107176
Client Name	[redacted] (AECOM Australia Pty Ltd)
Project Number	60612562_8.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	15.0	14.3	15.0	°C
pH	pH 4.00	417183	4.01	4.03	4.01	pH
pH	pH 7.00	419528	7.00	7.03	7.00	pH
Conductivity	2760 µs/cm at 25°C	399819	2760	2776	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	420448/418958	251.0	254.6	251.0	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	426184	0.0	0.5	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	97.8	100.0	%

Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	[redacted]
Calibration Date	27/06/2024
Calibration Due	27/12/2024

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

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AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP Singleton BME	**Project Number:**	60612562 / 8.1
Project Location:	Singleton Military Base	**Client:**	Defence
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	Pro Quatro
Serial Number:	23A107176

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	1/7				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7	10	2223		
Calibration Reading:	7.12	9.80	2223		
Calibration Temperature:	16.6	16.7	16.5		

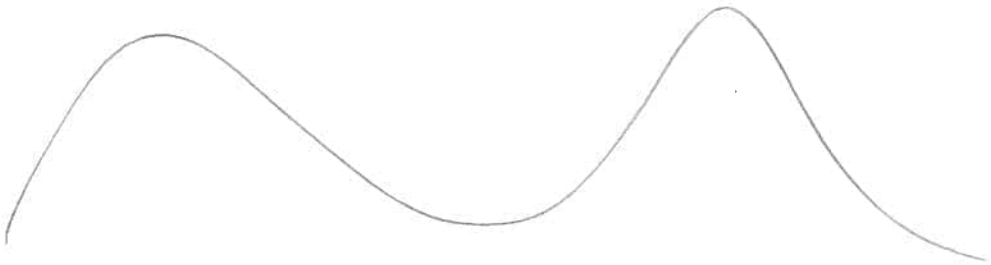
ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7	10	2223		
Bump Test Reading:	7.04	10.03	2223		
Bump Test Temperature:	16.5	16.7	16.5		

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.



Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted]

Fieldwork Staff Signature

1/7/2024

Date

Distribution: Project Central File

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AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP Singleton BME	**Project Number:**	60612562 / 8.1
Project Location:	Singleton Military Base	**Client:**	Defence
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	PRO QUATRO
Serial Number:	23A107176.

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	2/07 @ 1440.				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	10.00	2223		
Calibration Reading:	7.10	9.88	2220		
Calibration Temperature:	16.5	16.6	16.5		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	2/07				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	10.00	2223		
Bump Test Reading:	7.06	10.02	2221		
Bump Test Temperature:	16.5	16.6	16.5		

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted] — Fieldwork Staff Signature

2/07/24 — Date

Distribution: Project Central File

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ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP Singleton BME	**Project Number:**	60612562 / 8.1
Project Location:	Singleton Military Base	**Client:**	Defence
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	Pro Quatro.
Serial Number:	23A107176.

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	3/07 @ 1440.				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	10.00	2223		
Calibration Reading:	7.09	9.92	2221		
Calibration Temperature:	16.6	16.6	16.7		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	3/07				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	10.00	2223		
Bump Test Reading:	7.05	10.02	2222		
Bump Test Temperature:	16.6	16.6	16.7		

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted] — **Fieldwork Staff Signature**

3/07/24 — **Date**

Distribution: Project Central File

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Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	Validation by:	[redacted]	Date:	25/07/2024
Client:	Department of Defence	Data verified by:	[redacted]	Date:	31/07/2024
Site:	Singleton Military Area	Project Manager:	[redacted]		
Matrix type:	Groundwater, Surface Water, Sediment and Other				
Primary samples:	26 Groundwater samples, 19 Surface Water samples, 19 Sediment samples and 1 Wastewater effluent sample				
Laboratory:	Primary: ALS Secondary: Envirolab				
Lab reference:	ALS: ES2422142, ES2422143, ES2422144, ES2422145, ES2422146, ES2422147, ES2422149 Envirolab: 355926				
Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.				

Field Quality Assurance and Quality Control

Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024).
Sampling personnel	Sampling was conducted between 02/07/2024 and 04/07/2024. Field personnel were suitably qualified and experienced AECOM Environmental Scientists.
Sampling methodology	All water and sediment samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2024). After each sample was collected, reusable equipment was decontaminated using Liquinox and potable water and the consumables (nitrile gloves, HydraSleeve™ materials and/or bailers) were disposed of in waste bins.
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling where equipment was re-used and decontaminated between sample points. Rinsate blank samples were either collected from the final rinse of the interface probe or sampling trowel following decontamination, using laboratory-supplied de-ionised water.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were collected at a frequency of 1 in ten primary samples (10%), meeting the DQI. In total: • 5 water field duplicates and 5 water field triplicates were collected (10.8%) for 46 primary water samples • 2 sediment field duplicates and 2 sediment field triplicates were collected (10.5%) for 19 primary sediment samples in total.
Handling and preservation	All samples were received by the primary laboratory in appropriate containers, with ice present, at 0.5 °C, within the recommended temperature range (<6°C). All samples were received by the secondary laboratory in appropriate containers, with ice present, at 3.0 °C, within the recommended temperature range (<6°C).
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Measurements of depth to groundwater were undertaken using an interface probe, which was serviced by the supplier prior to use. All equipment calibration and service certificates are presented in Appendix C.

DATA VALIDATION REPORT

Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024).
Tests requested/reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) extended suite, at the standard level of detection. All sample requests for analysis are reported on the Chain of Custody (COC) and email amendments.
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory (ALS) reported sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision.
Method blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for both laboratories.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits. This is presented in the Quality Control Reports for the primary laboratory.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.
QA/QC Data Evaluation	
Comparison of field observations and laboratory results	No anomalies between field observations and analytical results were noted.
Anomalous data / Repeat analysis	Following the reporting of PFAS concentrations outside historical ranges at two locations (MW188S and SD563), the primary laboratory was requested to confirm the results by re-analysis. The repeat analysis confirmed the originally reported concentrations (which were within the same order of magnitude, as shown in the following results table). As such, the original result has been adopted for reporting purposes.

DATA VALIDATION REPORT

Sample Name	Analysis Type	Perfluorohexane sulfonic acid (PFHxS) Result	Perfluorooctane sulfonic acid (PFOS) Result	Perfluoro-octanoic acid (PFOA) Result
0356_MW188S_240703	original	0.04	<0.02	<0.01
	repeat	0.04	<0.02	<0.01
0356_SD563_240703	original	0.0012	0.106	0.0029
	repeat	0.0012	0.081	0.0031

Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	With the exception of the PFAS NEMP Freshwater 99% species protection (HEPA 2020) values for PFOS, the laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate blank sample results	The concentrations of PFAS in the rinsate blank samples (Table D3) were below the LOR, indicating decontamination procedures were adequate.
RPDs for field duplicates / triplicates	RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported (Table D1 and Table D2) within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR). While there were no reportable RPD exceedances, there was a discrepancy in reported results between primary sample 0356_SD004_240704 (PFOS reported below LOR) and duplicate samples 0356_QC104_240724 and 0356_QC204_240704 (PFOS reported above LOR). It is noted the concentrations are less than 10 x LOR, where precision is low. The highest concentrations have been adopted for quantitative purposes.
Overall Assessment	
	Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Water Duplicate RPDs

Table D2 – Sediment Duplicate RPDs

Table D3 – Rinsate Blank Results

Table D1 - Water Duplicate RPDs

Lab Report Number				ES2422149	ES2422149		ES2422149	355926		ES2422149	ES2422149		ES2422149	355926	
Field ID				0356_SW032_240702	0356_QC100_240702		0356_SW032_240702	0356_QC200_240702		0356_MW102_240702	0356_QC102_240702		0356_MW102_240702	0356_QC202_240702	
Matrix Type				Water	Water		Water	Water		Water	Water		Water	Water	
Date				02 Jul 2024	02 Jul 2024	RPD	02 Jul 2024	02 Jul 2024	RPD	02 Jul 2024	02 Jul 2024	RPD	02 Jul 2024	02 Jul 2024	RPD
	Unit	LOR	**RPD**												
PFAS															
Perfluorooctanoic acid (PFOA)	µg/L	0.01		<0.01	<0.01	nc	<0.01	0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01		0.43	0.47	9	0.43	0.36	18	<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		0.24	0.21	13	0.24	0.22	9	<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFHxS and PFOS	µg/L	0.01		0.67	0.68	1	0.67	0.58	14	<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFAS	µg/L	0.01		0.67	0.70	4	0.67	0.64	5	<0.01	<0.01	nc	<0.01	<0.01	nc
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	0.02	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.02		<0.1	<0.1	nc	<0.1	<0.02	nc	<0.1	<0.1	nc	<0.1	<0.02	nc
Perfluoropentanoic acid (PFPeA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	0.02	nc	<0.02	0.02	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecanoic acid (PFDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.05	nc	<0.02	<0.02	nc	<0.02	<0.05	nc
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
PFAS - Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.1	nc	<0.05	<0.05	nc	<0.05	<0.1	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number				ES2422149	ES2422149		ES2422149	355926		ES2422149	ES2422149		ES2422149	355926	
Field ID				0356_SW004_240704	0356_QC103_240704		0356_SW004_240704	0356_QC203_240704		0356_MW063_240704	0356_QC105_240704		0356_MW063_240704	0356_QC205_240704	
Matrix Type				Water	Water		Water	Water		Water	Water		Water	Water	
Date				04 Jul 2024	04 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD
	Unit	LOR	**RPD**												
PFAS															
Perfluorooctanoic acid (PFOA)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc	0.05	0.05	0	0.05	0.04	22
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFHxS and PFOS	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc	0.05	0.05	0	0.05	0.04	22
Sum of PFAS	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc	0.10	0.09	11	0.10	0.1	0
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.02		<0.1	<0.1	nc	<0.1	<0.02	nc	<0.1	<0.1	nc	<0.1	<0.02	nc
Perfluoropentanoic acid (PFPeA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	0.05	0.04	22	0.05	0.05	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecanoic acid (PFDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.05	nc	<0.02	<0.02	nc	<0.02	<0.05	nc
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	0.01	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
PFAS - Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.1	nc	<0.05	<0.05	nc	<0.05	<0.1	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

				Lab Report Number	ES2422149	ES2422149		ES2422149	355926	
				Field ID	0356_MW073_240704	0356_QC106_240704		0356_MW073_240704	0356_QC206_240704	
				Matrix Type	Water	Water		Water	Water	
				Date	04 Jul 2024	04 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD
	Unit	LOR	**RPD**							
PFAS										
Perfluorooctanoic acid (PFOA)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFHxS and PFOS	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFAS	µg/L	0.01		<0.01	<0.01	nc	<0.01	<0.01	nc
PFAS - Perfluoroalkyl Sulfonic Acids										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
PFAS - Perfluoroalkyl Carboxylic Acids										
Perfluorobutanoic acid (PFBA)	µg/L	0.02		<0.1	<0.1	nc	<0.1	<0.02	nc
Perfluoropentanoic acid (PFPeA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecanoic acid (PFDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.05	nc
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc
PFAS - Perfluoroalkyl Sulfonamides										
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.1	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number				ES2422149	ES2422149		ES2422149	355926		ES2422149	ES2422149		ES2422149	355926	
Field ID				0356_SD032_240702	0356_QC101_240702		0356_SD032_240702	0356_QC201_240702		0356_SD004_240704	0356_QC104_240704		0356_SD004_240704	0356_QC204_240704	
Matrix Type				Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Date				02 Jul 2024	02 Jul 2024	RPD	02 Jul 2024	02 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD	04 Jul 2024	04 Jul 2024	RPD
	Unit	LOR	**RPD**												
PFAS															
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0001		0.0040	0.0054	30	0.0040	0.0038	5	<0.0002	0.0009	nc	<0.0002	0.0002	nc
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0001		0.0005	0.0006	18	0.0005	0.0006	18	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Sum of PFHxS and PFOS	mg/kg	0.0001		0.0045	0.0060	29	0.0045	0.0044	2	<0.0002	0.0009	nc	<0.0002	0.0002	nc
Sum of PFAS	mg/kg	0.0001		0.0048	0.0063	27	0.0048	0.0047	2	<0.0002	0.0009	nc	<0.0002	0.0002	nc
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002		0.0003	0.0003	0	0.0003	0.0003	0	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	mg/kg	0.0002		<0.001	<0.001	nc	<0.001	<0.0002	nc	<0.001	<0.001	nc	<0.001	<0.0002	nc
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorononanoic acid (PFNA)	mg/kg	0.0001		<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005		<0.0005	<0.0005	nc	<0.0005	<0.005	nc	<0.0005	<0.0005	nc	<0.0005	<0.005	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0001		<0.0005	<0.0005	nc	<0.0005	<0.0001	nc	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0001		<0.0005	<0.0005	nc	<0.0005	<0.0001	nc	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0002		<0.0005	<0.0005	nc	<0.0005	<0.0002	nc	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0002		<0.0005	<0.0005	nc	<0.0005	<0.0002	nc	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc
PFAS - Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.001	nc	<0.0002	<0.0002	nc	<0.0002	<0.001	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005		<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005		<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005		<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002		<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005		<0.0005	<0.0005	nc	<0.0005	<0.005	nc	<0.0005	<0.0005	nc	<0.0005	<0.005	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D3 - Rinsate Blank Results

		Lab Report Number	ES2422149	ES2422149	ES2422149
		Field ID	0356_QC300_240702	0356_QC301_240703	0356_QC302_240704
		Matrix Type	Water	Water	Water
		Date	02 Jul 2024	03 Jul 2024	04 Jul 2024
	Unit	LOR			
PFAS					
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01
Sum of PFAS	µg/L	0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Sulfonic Acids					
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Carboxylic Acids					
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05
PFAS - (n:2) Fluorotelomer Sulfonic Acids					
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamides					
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05

Notes
LOR = Limit of Reporting

Appendix E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422142**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69423	Issue Date	: 12-Jul-2024 17:29
Sampler	: [redacted] [redacted]		
Site	: offsite 8		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: WASTEWATER (Matrix: WATER)				Sample ID	0356_OTH006_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 12:22	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2422142-001	----------	----------	----------	----------	
				Result	----	----	----	----	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	----	----	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	----	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.02**	----	----	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	----	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.07**	----	----	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	----	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	----	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.04**	----	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	----	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	----	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	----	----	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	----	----	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	----	----	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	----	----	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	----	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	----	----	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----	

Analytical Results

Sub-Matrix: WASTEWATER (Matrix: WATER)				Sample ID	0356_OTH006_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 12:22	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422142-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.13**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.09**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.13**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**112**	----	----	----	----
13C8-PFOA	----	0.02	%		**108**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WASTEWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	---	60	120
13C8-PFOA	---	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422142**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69423	Issue Date	: 12-Jul-2024
Sampler	: [redacted]		
Site	: offsite 8		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	0356_OTH006_240703	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	0356_OTH006_240703	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	0356_OTH006_240703	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	0356_OTH006_240703	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	0356_OTH006_240703	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	0356_OTH006_240703	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued							
ES2422143-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422142**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: offsite 8	Issue Date	: 12-Jul-2024
Sampler	: [redacted]	No. of samples received	: 1
Order number	: 60612562_8.1	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_OTH006_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_OTH006_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422142**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 2
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69423	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: offsite 8		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 08-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422142-001	03-Jul-2024 12:22	0356_OTH006_240703	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]
- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email [redacted]
- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email [redacted]

CHAIN OF CUSTODY

ALS COC#: 69423 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 05/7/24 1965	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: offsite 8

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_OTH006_240703		03/07/2024 12:22 PM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division Sydney

Work Order Reference

ES2422142

[redacted]

CHAIN OF CUSTODY

COC#: 69423 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: offsite 8

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_OTH006_240703	HDPE (no PTFE)	20 mL	00352312028575	Grey	No	
001	0356_OTH006_240703	HDPE (no PTFE)	20 mL	00352309050324	Grey	No	
001	0356_OTH006_240703	HDPE (no PTFE)	20 mL	00352312028392	Grey	No	
001	0356_OTH006_240703	HDPE (no PTFE)	20 mL	00352309050294	Grey	No	

Total Bottle Count: ALS: 4, Non ALS: 0

ALSCompass
SAMPLING *Intelligence*

E-MAILED

ES2422142
ALS Use Only

Custody Document for Submissions via ALS Compass App

LAB OF ORIGIN: NEWCASTLE

Project: 60612562 **Client:** AECOM **Project Manager:** [redacted]
Phone: ([redacted])

ALS Compass COC Reference: C9423 **# Samples:** 1 **Sampler:** [redacted]
Phone: ([redacted])

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	(NO)	N/A
	Free ice / frozen ice bricks upon receipt?	(YES)	NO	N/A
	Random sample temperature on receipt?	0.5	°C	

Custody:

Relinquished by:	**Received by:**	**Relinquished by:**	**Received by:**
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900	**Date / Time:** 5/7 900	**Date / Time:** 5/7 11am	**Date / Time:** 5/7/24 1945

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422143**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69426	Issue Date	: 12-Jul-2024 17:29
Sampler	: [redacted] [redacted]		
Site	: Offsite 7		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW139_240704	----	----	----	----
				Sampling date / time	04-Jul-2024 14:04	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422143-001	--------	--------	--------	--------
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.01**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.03**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW139_240704	----	----	----	----
				Sampling date / time	04-Jul-2024 14:04	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422143-001	--------	--------	--------	--------
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.05**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.05**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	----	----	----	----
13C8-PFOA	----	0.02	%		**102**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422143**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69426	Issue Date	: 12-Jul-2024
Sampler	: [redacted]		
Site	: Offsite 7		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	0356_MW139_240704	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	0356_MW139_240704	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	0356_MW139_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued							
ES2422143-001	0356_MW139_240704	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	0356_MW139_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422143**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Offsite 7	Issue Date	: 12-Jul-2024
Sampler	: [redacted]	No. of samples received	: 1
Order number	: 60612562_8.1	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW139_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW139_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_MW139_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW139_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_MW139_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422143**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 2
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69426	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Offsite 7		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 08-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422143-001	04-Jul-2024 14:04	0356_MW139_240704	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email

CHAIN OF CUSTODY

COC#: **69426** *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/241945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 7

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW139_240704		04/07/2024 02:04 PM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division Sydney

Work Order Reference

ES2422143

[redacted]

CHAIN OF CUSTODY

COC#: **69426** *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 7

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW139_240704	HDPE (no PTFE)	20 mL	00352309050318	Grey	No	
001	0356_MW139_240704	HDPE (no PTFE)	20 mL	00352309050258	Grey	No	
001	0356_MW139_240704	HDPE (no PTFE)	20 mL	00352309050372	Grey	No	
001	0356_MW139_240704	HDPE (no PTFE)	20 mL	00352309050165	Grey	No	

Total Bottle Count: ALS: 4, Non ALS: 0

ALSCompass SAMPLING *Intelligence*

E-MAILED

ES2422143

ALS Use Only

Custody Document for Submissions via ALS Compass App

LAB OF ORIGIN: NEWCASTLE

Project: 60612562 Client: Aecom Project Manager: [redacted]

Phone: ([redacted])

ALS Compass COC Reference: 69426 # Samples: 1 Sampler: [redacted]

Phone: ([redacted])

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact? 0.5	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	(YES)	NO	N/A
	Random sample temperature on receipt?		°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	5/7 [redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900	Date / Time: 9	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422144**	Page	: 1 of 9
Amendment	: **2**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2301	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69427	Issue Date	: 23-Jul-2024 15:47
Sampler	: [redacted] [redacted]		
Site	: Offsite 6		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (23/07/2024): This report has been amended to alter the sampling date/time for samples ES2422144-001, 003-006. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0356_MW126_240703	0356_MW128_240703	----	----	----
			Sampling date / time	03-Jul-2024 11:06	03-Jul-2024 10:20	----	----	----
Compound	CAS Number	LOR	Unit	ES2422144-001	ES2422144-002	--------	--------	--------
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.01**	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW126_240703	0356_MW128_240703	----	----	----
				Sampling date / time	03-Jul-2024 11:06	03-Jul-2024 10:20	----	----	----
Compound	CAS Number	LOR	Unit		ES2422144-001	ES2422144-002	--------	--------	--------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**110**	**108**	----	----	----
13C8-PFOA	----	0.02	%		**108**	**102**	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD052_240703	0356_SD080_240703	-----	-----	-----
				Sampling date / time	03-Jul-2024 10:20	03-Jul-2024 11:01	-----	-----	-----
Compound	CAS Number	LOR	Unit		ES2422144-003	ES2422144-004	---------	---------	---------
					Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**40.4**	**20.7**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	**0.0014**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0014**	**0.0205**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD052_240703	0356_SD080_240703	----	----	----
				Sampling date / time	03-Jul-2024 10:20	03-Jul-2024 11:01	----	----	----
Compound	CAS Number	LOR	Unit		ES2422144-003	ES2422144-004	--------	--------	--------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		**0.0014**	**0.0219**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0014**	**0.0219**	----	----	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		**0.0014**	**0.0219**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**97.0**	**88.6**	----	----	----
13C8-PFOA	---	0.0002	%		**97.2**	**99.6**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW035_240703	0356_SW036_240724	----	----	----
				Sampling date / time	03-Jul-2024 10:25	03-Jul-2024 10:57	----	----	----
Compound	CAS Number	LOR	Unit		ES2422144-005	ES2422144-006	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.36**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.46**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.05**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW035_240703	0356_SW036_240724	----	----	----
				Sampling date / time	03-Jul-2024 10:25	03-Jul-2024 10:57	----	----	----
Compound	CAS Number	LOR	Unit		ES2422144-005	ES2422144-006	--------	--------	--------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	**0.93**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	**0.82**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	**0.90**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**111**	----	----	----
13C8-PFOA	----	0.02	%		**105**	**109**	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422144**	Page	: 1 of 11
Amendment	: **2**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69427	Issue Date	: 23-Jul-2024
Sampler	: [redacted]		
Site	: Offsite 6		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918051)									
ES2422052-023	Anonymous	EA055: Moisture Content	----	0.1	%	7.2	7.3	2.0	0% - 20%
ES2422145-001	Anonymous	EA055: Moisture Content	----	0.1	%	44.4	47.7	7.1	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	0356_SD052_240703	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0014	0.0014	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0045	0.0048	6.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238)									
ES2422144-003	0356_SD052_240703	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238) - continued									
ES2422144-003	0356_SD052_240703	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0002	0.0004	50.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238)									
ES2422144-003	0356_SD052_240703	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238) - continued									
ES2422149-025	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	0356_SD052_240703	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238) - continued									
ES2422146-004	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.5	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.1	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.9	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.8	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.7	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	86.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	97.6	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	0356_SD052_240703	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	94.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	88.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	93.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	67.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)							
ES2422144-003	0356_SD052_240703	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	81.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	96.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	85.0	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	92.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	96.5	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	88.9	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	98.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	122	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	111	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)							
ES2422144-003	0356_SD052_240703	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	104	67.0	137

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238) - continued							
ES2422144-003	0356_SD052_240703	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	107	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	112	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	113	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	92.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	118	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	0356_SD052_240703	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	70.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	122	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	73.0	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422144**	Page	: 1 of 5
Amendment	: **2**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Offsite 6	Issue Date	: 23-Jul-2024
Sampler	: [redacted]	No. of samples received	: 6
Order number	: 60612562_8.1	No. of samples analysed	: 6

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	---	---	---	**11-Jul-2024**	17-Jul-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD052_240703, 0356_SD080_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW126_240703, 0356_MW128_240703, 0356_SW035_240703, 0356_SW036_240724	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356 MW126 240703. 0356 MW128 240703. 0356_SW035_240703, 0356_SW036_240724	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0356_MW126_240703,	0356_MW128_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_SW035_240703,	0356_SW036_240724							
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0356_MW126_240703,	0356_MW128_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_SW035_240703,	0356_SW036_240724							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0356_MW126_240703,	0356_MW128_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_SW035_240703,	0356_SW036_240724							

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422144**		
Amendment	: **2**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 3
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69427	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Offsite 6		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 23-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 6 / 6

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **23/07/2024: This is an updated SRN reflecting a change in the sampling date/time for samples ES2422144-001, 003-006.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2422144-003	03-Jul-2024 10:20	0356_SD052_240703	✓	✓
ES2422144-004	03-Jul-2024 11:01	0356_SD080_240703	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422144-001	03-Jul-2024 11:06	0356_MW126_240703	✓
ES2422144-002	03-Jul-2024 10:20	0356_MW128_240703	✓
ES2422144-005	03-Jul-2024 10:25	0356_SW035_240703	✓
ES2422144-006	03-Jul-2024 10:57	0356_SW036_240724	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email

ALSCompass SAMPLING Intelligence

E-MAILED

Environmental Division Sydney
Work Order Reference
ES2422144

[redacted]

LAB OF ORIGIN: NEWCASTLE

Custody Document for Submissions via ALS Compass App

Project: 60612562 Client: Aecom Project Manager: [redacted]

Phone: ([redacted])

ALS Compass COC Reference: 69427 # Samples: 6 Sampler: [redacted]

Phone: ([redacted])

Turnaround Requirements: Standard Urgent

Special Instructions:	ALS Use Only			
	Custody seal intact? 0.5	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt? (6)	YES	NO	N/A
	Random sample temperature on receipt? 0.5 (2) °C			

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900.	Date / Time: 5/7 0900	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CHAIN OF CUSTODY

ALS COC#: 69427 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 6

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

Environmental Division Sydney
Work Order Reference
ES2422144

[redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW126_240703		03/07/2024 10:40 AM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0356_MW128_240703		03/07/2024 10:20 AM	WATER	ALS: 4 Non ALS: 0	No		X		
003	0356_SD052_240703		03/07/2024 10:04 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
004	0356_SD080_240703		03/07/2024 10:40 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
005	0356_SW035_240703		03/07/2024 10:04 AM	WATER	ALS: 4 Non ALS: 0	No		X		
006	0356_SW036_240724		03/07/2024 10:41 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 69427 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] 05 17/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 6

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Freeice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: OS

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW126_240703	HDPE (no PTFE)	20 mL	00352309050208	Grey	No	
001	0356_MW126_240703	HDPE (no PTFE)	20 mL	00352309050207	Grey	No	
001	0356_MW126_240703	HDPE (no PTFE)	20 mL	00352309050247	Grey	No	
001	0356_MW126_240703	HDPE (no PTFE)	20 mL	00352309050193	Grey	No	
002	0356_MW128_240703	HDPE (no PTFE)	20 mL	00352309050135	Grey	No	
002	0356_MW128_240703	HDPE (no PTFE)	20 mL	00352309050236	Grey	No	
002	0356_MW128_240703	HDPE (no PTFE)	20 mL	00352312028076	Grey	No	
002	0356_MW128_240703	HDPE (no PTFE)	20 mL	00352312028326	Grey	No	
003	0356_SD052_240703	HDPE Soil Jar	200 mL	00621222074262	Grey	No	
004	0356_SD080_240703	HDPE Soil Jar	200 mL	00621222097897	Grey	No	
005	0356_SW035_240703	HDPE (no PTFE)	20 mL	00352309050359	Grey	No	
005	0356_SW035_240703	HDPE (no PTFE)	20 mL	00350621032102	Grey	No	
005	0356_SW035_240703	HDPE (no PTFE)	20 mL	00350621031932	Grey	No	
005	0356_SW035_240703	HDPE (no PTFE)	20 mL	00352309050285	Grey	No	
006	0356_SW036_240724	HDPE (no PTFE)	20 mL	00352309050196	Grey	No	
006	0356_SW036_240724	HDPE (no PTFE)	20 mL	00352312028204	Grey	No	
006	0356_SW036_240724	HDPE (no PTFE)	20 mL	00352309050290	Grey	No	
006	0356_SW036_240724	HDPE (no PTFE)	20 mL	00352312028253	Grey	No	

Total Bottle Count: ALS: 18, Non ALS: 0

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422145**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69429	Issue Date	: 16-Jul-2024 10:01
Sampler	: [redacted] [redacted]		
Site	: Offsite 4		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD039_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422145-001	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**44.4**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0040**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD039_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422145-001	--------	--------	--------	--------
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		**0.0040**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0040**	----	----	----	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		**0.0040**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**99.8**	----	----	----	----
13C8-PFOA	---	0.0002	%		**102**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW039_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422145-002	--------	--------	--------	--------
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW039_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422145-002	--------	--------	--------	--------
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**108**	----	----	----	----
13C8-PFOA	----	0.02	%		**99.6**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422145**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69429	Issue Date	: 16-Jul-2024
Sampler	: [redacted]		
Site	: Offsite 4		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918051)									
ES2422052-023	Anonymous	EA055: Moisture Content	----	0.1	%	7.2	7.3	2.0	0% - 20%
ES2422145-001	0356_SD039_240703	EA055: Moisture Content	----	0.1	%	44.4	47.7	7.1	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0014	0.0014	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0045	0.0048	6.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238) - continued									
ES2422144-003	Anonymous	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0002	0.0004	50.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238) - continued									
ES2422149-025	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238) - continued									
ES2422146-004	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.5	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.1	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.9	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.8	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.7	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	86.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	97.6	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	94.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	88.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	93.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	67.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	81.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	96.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	85.0	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	92.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	96.5	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	88.9	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	98.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	122	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	111	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	104	67.0	137

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238) - continued							
ES2422144-003	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	107	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	112	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	113	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	92.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	118	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	70.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	122	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	73.0	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422145**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Offsite 4	Issue Date	: 16-Jul-2024
Sampler	: [redacted]	No. of samples received	: 2
Order number	: 60612562_8.1	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD039_240703	03-Jul-2024	---	---	---	11-Jul-2024	17-Jul-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	30-Dec-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	30-Dec-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_SW039_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	30-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_SW039_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422145**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 3
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69429	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Offsite 4		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 08-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2422145-001	03-Jul-2024 09:20	0356_SD039_240703	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422145-002	03-Jul-2024 09:20	0356_SW039_240703	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

ALSCompass SAMPLING Intelligence

E-MAILED

Environmental Division Sydney
Work Order Reference
ES2422145

LAB OF ORIGIN: NEWCASTLE

Custody Document for Submissions via ALS Compass App

Project: 60612562 Client: Aecom Project Manager: [redacted]
Phone: ([redacted])

ALS Compass COC Reference: 69429 # Samples: 2 Sampler: [redacted]
Phone: ([redacted])

Turnaround Requirements: Standard Urgent

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?	0.5	°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900	Date / Time: 5/7 900	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CHAIN OF CUSTODY

COC#: 69429 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 4

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_SD039_240703		03/07/2024 09:20 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
002	0356_SW039_240703		03/07/2024 09:20 AM	WATER	ALS: 4 Non ALS: 0	No		X		

Environmental Division Sydney

Work Order Reference

ES2422145

[redacted]

CHAIN OF CUSTODY

ALS COC#: 69429 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 4

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_SD039_240703	HDPE Soil Jar	200 mL	00621222074377	Grey	No	
002	0356_SW039_240703	HDPE (no PTFE)	20 mL	00352309050369	Grey	No	
002	0356_SW039_240703	HDPE (no PTFE)	20 mL	00352312028571	Grey	No	
002	0356_SW039_240703	HDPE (no PTFE)	20 mL	00352309050308	Grey	No	
002	0356_SW039_240703	HDPE (no PTFE)	20 mL	00352312028223	Grey	No	

Total Bottle Count: ALS: 5, Non ALS: 0

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422146**	Page	: 1 of 11
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2301	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 11:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69430	Issue Date	: 23-Jul-2024 15:43
Sampler	: [redacted] [redacted]		
Site	: Offsite 3		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 14		
No. of samples analysed	: 14		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (23/07/2024): This report has been amended to alter the sampling date/time for samples ES2422146-001 and 009. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	0356_MW121_240703	0356_MW124_240703	0356_MW187D_240703	0356_MW187S_240703	0356_MW188D_240703
				Sampling date / time	03-Jul-2024 14:11	03-Jul-2024 12:24	03-Jul-2024 12:49	03-Jul-2024 12:48	03-Jul-2024 13:35
					ES2422146-001	ES2422146-002	ES2422146-003	ES2422146-004	ES2422146-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.01**	<0.01	<0.01	**0.01**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW121_240703	0356_MW124_240703	0356_MW187D_240703	0356_MW187S_240703	0356_MW188D_240703
				Sampling date / time	03-Jul-2024 14:11	03-Jul-2024 12:24	03-Jul-2024 12:49	03-Jul-2024 12:48	03-Jul-2024 13:35
Compound	CAS Number	LOR	Unit		ES2422146-001	ES2422146-002	ES2422146-003	ES2422146-004	ES2422146-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl pcrfluorooctanc sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	**0.03**	<0.01	<0.01	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.03**	<0.01	<0.01	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	**0.03**	<0.01	<0.01	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**108**	**107**	**109**	**105**	**105**
13C8-PFOA	----	0.02	%		**101**	**108**	**105**	**101**	**110**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW188S_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 13:36	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422146-006	---------	---------	---------	---------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW188S_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 13:36	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422146-006	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.04**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.04**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	----	----	----	----
13C8-PFOA	----	0.02	%		**105**	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD046_240703	0356_SD047_240703	0356_SD539_240703	0356_SD563_240703	----
			Sampling date / time	03-Jul-2024 12:25	03-Jul-2024 14:33	03-Jul-2024 14:06	03-Jul-2024 14:27	----
Compound	CAS Number	LOR	Unit	ES2422146-007	ES2422146-008	ES2422146-009	ES2422146-010	--------
				Result	Result	Result	Result	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**36.2**	**9.9**	**40.6**	**24.2**	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	**0.0004**	**0.0012**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0006**	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0008**	**0.0004**	**0.0069**	**0.106**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0006**	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0003**	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0029**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0010**	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0008**	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0003**	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0003**	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0003**	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0021**	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD046_240703	0356_SD047_240703	0356_SD539_240703	0356_SD563_240703	----
			Sampling date / time	03-Jul-2024 12:25	03-Jul-2024 14:33	03-Jul-2024 14:06	03-Jul-2024 14:27	----
Compound	CAS Number	LOR	Unit	ES2422146-007	ES2422146-008	ES2422146-009	ES2422146-010	--------
				Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0003**	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums								
Sum of PFAS	---	0.0002	mg/kg	**0.0008**	**0.0004**	**0.0073**	**0.117**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	**0.0008**	**0.0004**	**0.0073**	**0.107**	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg	**0.0008**	**0.0004**	**0.0073**	**0.110**	----
EP231S: PFAS Surrogate								
13C4-PFOS	---	0.0002	%	**98.6**	**98.6**	**95.7**	**103**	----
13C8-PFOA	---	0.0002	%	**98.8**	**102**	**95.8**	**102**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW064_240703	0356_SW065_240703	0356_SW553_240703	0356_SW563_240703	----
				Sampling date / time	03-Jul-2024 12:25	03-Jul-2024 14:34	03-Jul-2024 13:48	03-Jul-2024 14:28	----
Compound	CAS Number	LOR	Unit		ES2422146-011	ES2422146-012	ES2422146-013	ES2422146-014	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	**0.14**	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.11**	**0.02**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0356_SW064_240703	0356_SW065_240703	0356_SW553_240703	0356_SW563_240703	----
			Sampling date / time	03-Jul-2024 12:25	03-Jul-2024 14:34	03-Jul-2024 13:48	03-Jul-2024 14:28	----
Compound	CAS Number	LOR	Unit	ES2422146-011	ES2422146-012	ES2422146-013	ES2422146-014	--------
				Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	**0.25**	**0.02**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	**0.25**	**0.02**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	**0.25**	**0.02**	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**105**	**107**	**105**	**108**	----
13C8-PFOA	----	0.02	%	**113**	**106**	**102**	**105**	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422146**	Page	: 1 of 11
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69430	Issue Date	: 23-Jul-2024
Sampler	: [redacted]		
Site	: Offsite 3		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 14		
No. of samples analysed	: 14		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Inorganics, Smithfield, NSW
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918051)									
ES2422052-023	Anonymous	EA055: Moisture Content	----	0.1	%	7.2	7.3	2.0	0% - 20%
ES2422145-001	Anonymous	EA055: Moisture Content	----	0.1	%	44.4	47.7	7.1	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0014	0.0014	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0045	0.0048	6.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238) - continued									
ES2422144-003	Anonymous	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0002	0.0004	50.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238) - continued									
ES2422149-025	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	0356_MW187S_240703	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	0356_MW187S_240703	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	0356_MW187S_240703	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238) - continued									
ES2422146-004	0356_MW187S_240703	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	0356_MW187S_240703	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Sum of PFAS	---	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	0356_MW187S_240703	EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.5	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.1	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.9	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.8	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.7	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	86.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	97.6	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	94.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	88.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	93.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	67.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	81.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	96.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	85.0	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	92.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	96.5	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	88.9	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	98.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	122	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	111	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	104	67.0	137

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238) - continued							
ES2422144-003	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	107	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	112	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	113	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	92.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	118	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	70.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	122	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	73.0	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422146**	Page	: 1 of 5
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Offsite 3	Issue Date	: 23-Jul-2024
Sampler	: [redacted]	No. of samples received	: 14
Order number	: 60612562_8.1	No. of samples analysed	: 14

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	---	---	---	11-Jul-2024	17-Jul-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD046_240703, 0356_SD047_240703, 0356_SD539_240703, 0356_SD563_240703	03-Jul-2024	10-Jul-2024	30-Dec-2024	✓	12-Jul-2024	19-Aug-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0356_MW121_240703,	0356_MW124_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_MW187D_240703,	0356_MW187S_240703,							
0356_MW188D_240703,	0356_MW188S_240703,							
0356_SW064_240703,	0356_SW065_240703,							
0356_SW553_240703,	0356_SW563_240703							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0356_MW121_240703,	0356_MW124_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_MW187D_240703,	0356_MW187S_240703,							
0356_MW188D_240703,	0356_MW188S_240703,							
0356_SW064_240703,	0356_SW065_240703,							
0356_SW553_240703,	0356_SW563_240703							
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0356_MW121_240703,	0356_MW124_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_MW187D_240703,	0356_MW187S_240703,							
0356_MW188D_240703,	0356_MW188S_240703,							
0356_SW064_240703,	0356_SW065_240703,							
0356_SW553_240703,	0356_SW563_240703							
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0356_MW121_240703,	0356_MW124_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_MW187D_240703,	0356_MW187S_240703,							
0356_MW188D_240703,	0356_MW188S_240703,							
0356_SW064_240703,	0356_SW065_240703,							
0356_SW553_240703,	0356_SW563_240703							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0356_MW121_240703,	0356_MW124_240703,	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
0356_MW187D_240703,	0356_MW187S_240703,							
0356_MW188D_240703,	0356_MW188S_240703,							
0356_SW064_240703,	0356_SW065_240703,							
0356_SW553_240703,	0356_SW563_240703							

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422146**		
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 3
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69430	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Offsite 3		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 11:00	Issue Date	: 23-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 14 / 14

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **23/07/2024: This is an updated SRN reflecting a change to the sampling date/time for samples ES2422146-001 and 009.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2422146-007	03-Jul-2024 12:25	0356_SD046_240703	✓	✓
ES2422146-008	03-Jul-2024 14:33	0356_SD047_240703	✓	✓
ES2422146-009	03-Jul-2024 14:06	0356_SD539_240703	✓	✓
ES2422146-010	03-Jul-2024 14:27	0356_SD563_240703	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422146-001	03-Jul-2024 14:11	0356_MW121_240703	✓
ES2422146-002	03-Jul-2024 12:24	0356_MW124_240703	✓
ES2422146-003	03-Jul-2024 12:49	0356_MW187D_240703	✓
ES2422146-004	03-Jul-2024 12:48	0356_MW187S_240703	✓
ES2422146-005	03-Jul-2024 13:35	0356_MW188D_240703	✓
ES2422146-006	03-Jul-2024 13:36	0356_MW188S_240703	✓
ES2422146-011	03-Jul-2024 12:25	0356_SW064_240703	✓
ES2422146-012	03-Jul-2024 14:34	0356_SW065_240703	✓
ES2422146-013	03-Jul-2024 13:48	0356_SW553_240703	✓
ES2422146-014	03-Jul-2024 14:28	0356_SW563_240703	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email

CHAIN OF CUSTODY

ALS COC#: 69430 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 3

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

Environmental Division Sydney
Work Order Reference
ES2422146

[redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0356_SD047_240703		03/07/2024 02:33 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
009	0356_SD539_240703		03/07/2024 01:49 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
010	0356_SD563_240703		03/07/2024 02:27 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
011	0356_SW064_240703		03/07/2024 12:25 PM	WATER	ALS: 4 Non ALS: 0	No		X		
012	0356_SW065_240703		03/07/2024 02:34 PM	WATER	ALS: 4 Non ALS: 0	No		X		
013	0356_SW553_240703		03/07/2024 01:48 PM	WATER	ALS: 4 Non ALS: 0	No		X		
014	0356_SW563_240703		03/07/2024 02:28 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 69430 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: [redacted] 5/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 3

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

(Free ice) / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW121_240703	HDPE (no PTFE)	20 mL	00352309050958	Grey	No	
001	0356_MW121_240703	HDPE (no PTFE)	20 mL	00352309051177	Grey	No	
001	0356_MW121_240703	HDPE (no PTFE)	20 mL	00352309050365	Grey	No	
001	0356_MW121_240703	HDPE (no PTFE)	20 mL	00352309050357	Grey	No	
002	0356_MW124_240703	HDPE (no PTFE)	20 mL	00352312066160	Grey	No	
002	0356_MW124_240703	HDPE (no PTFE)	20 mL	00352312028405	Grey	No	
002	0356_MW124_240703	HDPE (no PTFE)	20 mL	00352312028565	Grey	No	
002	0356_MW124_240703	HDPE (no PTFE)	20 mL	00352312066231	Grey	No	
003	0356_MW187D_240703	HDPE (no PTFE)	20 mL	00352309050772	Grey	No	
003	0356_MW187D_240703	HDPE (no PTFE)	20 mL	00352312028514	Grey	No	
003	0356_MW187D_240703	HDPE (no PTFE)	20 mL	00352312028307	Grey	No	
003	0356_MW187D_240703	HDPE (no PTFE)	20 mL	00352309050872	Grey	No	
004	0356_MW187S_240703	HDPE (no PTFE)	20 mL	00352309050839	Grey	No	
004	0356_MW187S_240703	HDPE (no PTFE)	20 mL	00352309050717	Grey	No	
004	0356_MW187S_240703	HDPE (no PTFE)	20 mL	00352101040426	Grey	No	
004	0356_MW187S_240703	HDPE (no PTFE)	20 mL	00352101040275	Grey	No	
005	0356_MW188D_240703	HDPE (no PTFE)	20 mL	00352309050793	Grey	No	
005	0356_MW188D_240703	HDPE (no PTFE)	20 mL	00352309051317	Grey	No	
005	0356_MW188D_240703	HDPE (no PTFE)	20 mL	00352309050360	Grey	No	
005	0356_MW188D_240703	HDPE (no PTFE)	20 mL	00352309050113	Grey	No	
006	0356_MW188S_240703	HDPE (no PTFE)	20 mL	00352309050931	Grey	No	
006	0356_MW188S_240703	HDPE (no PTFE)	20 mL	00352309050781	Grey	No	
006	0356_MW188S_240703	HDPE (no PTFE)	20 mL	00352309050992	Grey	No	
006	0356_MW188S_240703	HDPE (no PTFE)	20 mL	00352309050774	Grey	No	
007	0356_SD046_240703	HDPE Soil Jar	200 mL	00621222074376	Grey	No	
008	0356_SD047_240703	HDPE Soil Jar	200 mL	00621222074339	Grey	No	

CHAIN OF CUSTODY

COC#: 69430 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 5/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 3

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

009	0356_SD539_240703	HDPE Soil Jar	200 mL	00621222074379	Grey	No	
010	0356_SD563_240703	HDPE Soil Jar	200 mL	00621222074239	Grey	No	
011	0356_SW064_240703	HDPE (no PTFE)	20 mL	00352309051087	Grey	No	
011	0356_SW064_240703	HDPE (no PTFE)	20 mL	00352309051232	Grey	No	
011	0356_SW064_240703	HDPE (no PTFE)	20 mL	00352309051045	Grey	No	
011	0356_SW064_240703	HDPE (no PTFE)	20 mL	00352309051239	Grey	No	
012	0356_SW065_240703	HDPE (no PTFE)	20 mL	00352309050886	Grey	No	
012	0356_SW065_240703	HDPE (no PTFE)	20 mL	00352309050801	Grey	No	
012	0356_SW065_240703	HDPE (no PTFE)	20 mL	00352309051126	Grey	No	
012	0356_SW065_240703	HDPE (no PTFE)	20 mL	00352309050935	Grey	No	
013	0356_SW553_240703	HDPE (no PTFE)	20 mL	00352309050260	Grey	No	
013	0356_SW553_240703	HDPE (no PTFE)	20 mL	00352309050156	Grey	No	
013	0356_SW553_240703	HDPE (no PTFE)	20 mL	00352309050959	Grey	No	
013	0356_SW553_240703	HDPE (no PTFE)	20 mL	00352309050832	Grey	No	
014	0356_SW563_240703	HDPE (no PTFE)	20 mL	00352101017328	Grey	No	
014	0356_SW563_240703	HDPE (no PTFE)	20 mL	00352101017781	Grey	No	
014	0356_SW563_240703	HDPE (no PTFE)	20 mL	00352309050391	Grey	No	
014	0356_SW563_240703	HDPE (no PTFE)	20 mL	00352309051015	Grey	No	

Total Bottle Count: ALS: 44, Non ALS: 0

ALSCompass
SAMPLING *Intelligence*

ALS

E-MAILED

LAB OF ORIGIN
NEWCASTLE

Environmental Division
Sydney
Work Order Reference
ES2422146

[redacted]

Custody Document for Submissions via ALS Compass App

Project: 60612562 Client: Aecom Project Manager: [redacted]

Phone: ([redacted])

ALS Compass COC Reference: 69430 # Samples: 14 Sampler: [redacted]

Phone: ([redacted])

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	(NO)	N/A
	Free ice / frozen ice bricks upon receipt?	(YES)	NO	N/A
	Random sample temperature on receipt? 0.5		°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900	Date / Time: 5/7 900	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CHAIN OF CUSTODY

COC#: 69430 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: [redacted] S17174 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 3

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

Environmental Division Sydney
Work Order Reference
ES2422146

[redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW121_240703		03/07/2024 01:49 PM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0356_MW124_240703		03/07/2024 12:24 PM	WATER	ALS: 4 Non ALS: 0	No		X		
003	0356_MW187D_240703		03/07/2024 12:49 PM	WATER	ALS: 4 Non ALS: 0	No		X		
004	0356_MW187S_240703		03/07/2024 12:48 PM	WATER	ALS: 4 Non ALS: 0	No		X		
005	0356_MW188D_240703		03/07/2024 01:35 PM	WATER	ALS: 4 Non ALS: 0	No		X		
006	0356_MW188S_240703		03/07/2024 01:36 PM	WATER	ALS: 4 Non ALS: 0	No		X		
007	0356_SD046_240703		03/07/2024 12:25 PM	SOIL	ALS: 1 Non ALS: 0	No	X			

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422147**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69431	Issue Date	: 12-Jul-2024 17:27
Sampler	: [redacted] [redacted]		
Site	: Offsite 2		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW056_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 08:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422147-001	--------	--------	--------	--------
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.07**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW056_240703	----	----	----	----
				Sampling date / time	03-Jul-2024 08:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2422147-001	--------	--------	--------	--------
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.09**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	----	----	----	----
13C8-PFOA	----	0.02	%		**104**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	---	60	120
13C8-PFOA	---	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422147**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69431	Issue Date	: 12-Jul-2024
Sampler	: [redacted]		
Site	: Offsite 2		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	<0.02	75.9	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5912238) - continued									
ES2422142-001	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422146-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5912238)									
ES2422142-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.09	36.4	0% - 50%
ES2422146-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	96.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	102	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	93.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	92.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	94.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	108	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	97.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5912238) - continued							
ES2422143-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5912238)							
ES2422143-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	92.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	77.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.1	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422147**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: [redacted]
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Offsite 2	Issue Date	: 12-Jul-2024
Sampler	: [redacted]	No. of samples received	: 1
Order number	: 60612562_8.1	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW056_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW056_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_MW056_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW056_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_MW056_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422147**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 2
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69431	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Offsite 2		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 08-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422147-001	03-Jul-2024 08:40	0356_MW056_240703	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	[redacted]
[redacted]		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- A4 - AU Tax Invoice (INV)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
[redacted]		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	
- EDI Format - ESDAT (ESDAT)	Email	

CHAIN OF CUSTODY

ALS COC#: 69431 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 05/7/24 1445	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 2

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW056_240703		03/07/2024 08:40 AM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division Sydney
Work Order Reference
ES2422147

[redacted]

CHAIN OF CUSTODY

COC#: 69431 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1965	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Offsite 2

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: as

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW056_240703	HDPE (no PTFE)	20 mL	00352309050230	Grey	No	
001	0356_MW056_240703	HDPE (no PTFE)	20 mL	00352312028020	Grey	No	
001	0356_MW056_240703	HDPE (no PTFE)	20 mL	00352309050271	Grey	No	
001	0356_MW056_240703	HDPE (no PTFE)	20 mL	00352312028083	Grey	No	

Total Bottle Count: ALS: 4, Non ALS: 0

ALSCompass
SAMPLING *Intelligence*

E-MAILED

LAB OF ORIGIN:
NEWCASTLE

ES2422147

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: 60612562 **Client:** AECOM **Project Manager:** [redacted]
Phone: ([redacted])

ALS Compass COC Reference: 69431 **# Samples:** 1 **Sampler:** [redacted]
Phone: ([redacted])

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?	0.5	°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 5/7/24 0900	Date / Time: 5/7 900	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CERTIFICATE OF ANALYSIS

Work Order	: **ES2422149**	Page	: 1 of 27
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2301	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ---	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024 09:00
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69432	Issue Date	: 25-Jul-2024 14:02
Sampler	: [redacted] [redacted]		
Site	: Singleton		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 50		
No. of samples analysed	: 50		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW
	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW
	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (23/07/2024): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EP231X for sample ES2422149-023.
- Amendment (23/07/2024): This report has been amended to alter the sampling date/time for samples ES2422149-027, 039 and 048. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW008_240702	0356_MW011_240702	0356_MW048_240702	0356_MW050_240702	0356_MW052_240702
				Sampling date / time	02-Jul-2024 12:16	02-Jul-2024 12:02	02-Jul-2024 10:25	02-Jul-2024 10:04	02-Jul-2024 10:39
Compound	CAS Number	LOR	Unit		ES2422149-001	ES2422149-002	ES2422149-003	ES2422149-004	ES2422149-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.20**	<0.02	**0.02**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.40**	<0.02	**0.03**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**0.04**	**3.04**	<0.01	**0.62**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	**0.06**	<0.01	**0.72**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.03**	**0.07**	<0.02	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.04**	**0.31**	<0.02	**0.08**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.06**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.08**	<0.01	**0.03**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW008_240702	0356_MW011_240702	0356_MW048_240702	0356_MW050_240702	0356_MW052_240702
				Sampling date / time	02-Jul-2024 12:16	02-Jul-2024 12:02	02-Jul-2024 10:25	02-Jul-2024 10:04	02-Jul-2024 10:39
Compound	CAS Number	LOR	Unit		ES2422149-001	ES2422149-002	ES2422149-003	ES2422149-004	ES2422149-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.03**	**0.17**	**4.31**	<0.01	**1.53**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	**0.06**	**3.10**	<0.01	**1.34**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.03**	**0.13**	**3.82**	<0.01	**1.50**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.2**	**97.0**	**96.8**	**93.9**	**95.5**
13C8-PFOA	----	0.02	%		**98.7**	**96.9**	**99.4**	**94.5**	**100**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW059_240702	0356_MW063_240704	0356_MW071_240704	0356_MW073_240704	0356_MW102_240702
				Sampling date / time	02-Jul-2024 11:49	04-Jul-2024 09:22	04-Jul-2024 10:01	04-Jul-2024 10:08	02-Jul-2024 09:33
Compound	CAS Number	LOR	Unit		ES2422149-006	ES2422149-007	ES2422149-008	ES2422149-009	ES2422149-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	<0.01	**0.02**	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.05**	**0.02**	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.05**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW059_240702	0356_MW063_240704	0356_MW071_240704	0356_MW073_240704	0356_MW102_240702
				Sampling date / time	02-Jul-2024 11:49	04-Jul-2024 09:22	04-Jul-2024 10:01	04-Jul-2024 10:08	02-Jul-2024 09:33
Compound	CAS Number	LOR	Unit		ES2422149-006	ES2422149-007	ES2422149-008	ES2422149-009	ES2422149-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.04**	**0.10**	**0.04**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	**0.05**	**0.04**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.04**	**0.10**	**0.04**	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.8**	**93.4**	**96.0**	**92.9**	**93.1**
13C8-PFOA	----	0.02	%		**99.5**	**93.6**	**99.5**	**97.1**	**103**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW109_240704	0356_MW110_240704	0356_MW114_240704	0356_MW115_240704	0356_MW118_240704
				Sampling date / time	04-Jul-2024 11:20	04-Jul-2024 11:20	04-Jul-2024 11:40	04-Jul-2024 11:40	04-Jul-2024 12:17
Compound	CAS Number	LOR	Unit		ES2422149-011	ES2422149-012	ES2422149-013	ES2422149-014	ES2422149-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW109_240704	0356_MW110_240704	0356_MW114_240704	0356_MW115_240704	0356_MW118_240704
				Sampling date / time	04-Jul-2024 11:20	04-Jul-2024 11:20	04-Jul-2024 11:40	04-Jul-2024 11:40	04-Jul-2024 12:17
Compound	CAS Number	LOR	Unit		ES2422149-011	ES2422149-012	ES2422149-013	ES2422149-014	ES2422149-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.6**	**93.2**	**92.1**	**93.8**	**91.9**
13C8-PFOA	----	0.02	%		**96.9**	**100**	**101**	**96.0**	**97.4**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW167_240702	0356_QC102_240702	0356_QC105_240704	----	----
				Sampling date / time	02-Jul-2024 12:34	02-Jul-2024 09:34	04-Jul-2024 09:23	----	----
Compound	CAS Number	LOR	Unit		ES2422149-016	ES2422149-019	ES2422149-022	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.05**	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.04**	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW167_240702	0356_QC102_240702	0356_QC105_240704	----	----
				Sampling date / time	02-Jul-2024 12:34	02-Jul-2024 09:34	04-Jul-2024 09:23	----	----
Compound	CAS Number	LOR	Unit		ES2422149-016	ES2422149-019	ES2422149-022	--------	--------
					Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	**0.09**	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**0.05**	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	**0.09**	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**92.2**	**93.1**	**110**	----	----
13C8-PFOA	----	0.02	%		**99.3**	**98.0**	**102**	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0356_QC300_240702	0356_QC301_240703	0356_QC302_240704	----	----
				Sampling date / time	02-Jul-2024 14:47	03-Jul-2024 14:45	04-Jul-2024 12:55	----	----
Compound	CAS Number	LOR	Unit		ES2422149-048	ES2422149-049	ES2422149-050	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0356_QC300_240702	0356_QC301_240703	0356_QC302_240704	----	----
				Sampling date / time	02-Jul-2024 14:47	03-Jul-2024 14:45	04-Jul-2024 12:55	----	----
Compound	CAS Number	LOR	Unit		ES2422149-048	ES2422149-049	ES2422149-050	--------	--------
					Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**97.7**	**105**	----	----
13C8-PFOA	----	0.02	%		**104**	**105**	**104**	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_QC101_240702	0356_QC104_240704	0356_SD002_240702	0356_SD003_240702	0356_SD004_240704
			Sampling date / time	02-Jul-2024 08:44	04-Jul-2024 08:36	02-Jul-2024 10:11	02-Jul-2024 10:58	04-Jul-2024 08:36
Compound	CAS Number	LOR	Unit	ES2422149-018	ES2422149-021	ES2422149-024	ES2422149-025	ES2422149-026
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**12.2**	**37.5**	**20.8**	**53.5**	**49.3**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0006**	<0.0002	**0.0016**	**0.0006**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0054**	**0.0009**	**0.0087**	**0.0045**	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0003**	<0.0002	**0.0002**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_QC101_240702	0356_QC104_240704	0356_SD002_240702	0356_SD003_240702	0356_SD004_240704
				Sampling date / time	02-Jul-2024 08:44	04-Jul-2024 08:36	02-Jul-2024 10:11	02-Jul-2024 10:58	04-Jul-2024 08:36
Compound	CAS Number	LOR	Unit		ES2422149-018	ES2422149-021	ES2422149-024	ES2422149-025	ES2422149-026
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		**0.0063**	**0.0009**	**0.0110**	**0.0053**	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0060**	**0.0009**	**0.0103**	**0.0051**	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		**0.0060**	**0.0009**	**0.0108**	**0.0051**	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**106**	**97.8**	**101**	**92.2**	**98.4**
13C8-PFOA	---	0.0002	%		**101**	**106**	**100**	**92.6**	**103**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD005_240704	0356_SD032_240702	0356_SD040_240704	0356_SD053_240702	0356_SD055_240702
			Sampling date / time	04-Jul-2024 09:10	02-Jul-2024 08:44	04-Jul-2024 10:33	02-Jul-2024 12:41	02-Jul-2024 11:30
Compound	CAS Number	LOR	Unit	ES2422149-027	ES2422149-028	ES2422149-029	ES2422149-030	ES2422149-031
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**46.6**	**11.1**	**27.4**	**19.6**	**40.2**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	**0.0005**	<0.0002	**0.0005**	**0.0004**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	**0.0040**	**0.0002**	**0.0050**	**0.0039**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	**0.0003**	<0.0002	<0.0002	**0.0004**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD005_240704	0356_SD032_240702	0356_SD040_240704	0356_SD053_240702	0356_SD055_240702
				Sampling date / time	04-Jul-2024 09:10	02-Jul-2024 08:44	04-Jul-2024 10:33	02-Jul-2024 12:41	02-Jul-2024 11:30
Compound	CAS Number	LOR	Unit		ES2422149-027	ES2422149-028	ES2422149-029	ES2422149-030	ES2422149-031
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	**0.0048**	**0.0002**	**0.0055**	**0.0047**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	**0.0045**	**0.0002**	**0.0055**	**0.0043**
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	**0.0045**	**0.0002**	**0.0055**	**0.0043**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**103**	**102**	**104**	**98.0**	**72.2**
13C8-PFOA	---	0.0002	%		**96.9**	**101**	**115**	**97.2**	**96.2**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD065_240702	0356_SD114_240704	0356_SD115_240702	0356_SD116_240704	----
			Sampling date / time	02-Jul-2024 09:04	04-Jul-2024 12:37	02-Jul-2024 09:44	04-Jul-2024 12:51	----
Compound	CAS Number	LOR	Unit	ES2422149-032	ES2422149-033	ES2422149-034	ES2422149-035	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**27.5**	**37.1**	**17.7**	**22.6**	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0019**	<0.0002	**0.0009**	**0.0004**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0095**	**0.0005**	**0.0362**	**0.0016**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD065_240702	0356_SD114_240704	0356_SD115_240702	0356_SD116_240704	----
			Sampling date / time	02-Jul-2024 09:04	04-Jul-2024 12:37	02-Jul-2024 09:44	04-Jul-2024 12:51	----
Compound	CAS Number	LOR	Unit	ES2422149-032	ES2422149-033	ES2422149-034	ES2422149-035	--------
				Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums								
Sum of PFAS	---	0.0002	mg/kg	**0.0114**	**0.0005**	**0.0371**	**0.0020**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	**0.0114**	**0.0005**	**0.0371**	**0.0020**	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg	**0.0114**	**0.0005**	**0.0371**	**0.0020**	----
EP231S: PFAS Surrogate								
13C4-PFOS	---	0.0002	%	**97.8**	**98.6**	**100**	**105**	----
13C8-PFOA	---	0.0002	%	**101**	**100.0**	**95.2**	**97.0**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_QC103_240704	0356_SW002_240702	0356_SW003_240724	0356_SW004_240704	0356_SW005_240704
				Sampling date / time	04-Jul-2024 08:37	02-Jul-2024 10:05	02-Jul-2024 10:57	04-Jul-2024 08:38	04-Jul-2024 09:03
Compound	CAS Number	LOR	Unit		ES2422149-020	ES2422149-036	ES2422149-037	ES2422149-038	ES2422149-039
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.06**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.99**	**0.01**	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.67**	**0.02**	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.11**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.05**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_QC103_240704	0356_SW002_240702	0356_SW003_240724	0356_SW004_240704	0356_SW005_240704
				Sampling date / time	04-Jul-2024 08:37	02-Jul-2024 10:05	02-Jul-2024 10:57	04-Jul-2024 08:38	04-Jul-2024 09:03
Compound	CAS Number	LOR	Unit		ES2422149-020	ES2422149-036	ES2422149-037	ES2422149-038	ES2422149-039
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**2.02**	**0.03**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.66**	**0.03**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**1.92**	**0.03**	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**92.3**	**104**	**100**	**103**	**105**
13C8-PFOA	----	0.02	%		**96.8**	**105**	**101**	**103**	**102**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW026_240702	0356_SW028_240702	0356_SW032_240702	0356_SW034_240702	0356_SW040_240704
				Sampling date / time	02-Jul-2024 12:40	02-Jul-2024 11:29	02-Jul-2024 08:45	02-Jul-2024 09:04	04-Jul-2024 10:34
Compound	CAS Number	LOR	Unit		ES2422149-040	ES2422149-041	ES2422149-042	ES2422149-043	ES2422149-044
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	<0.02	<0.02	**0.03**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.02**	<0.02	<0.02	**0.03**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.34**	<0.01	**0.24**	**0.55**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.45**	**0.01**	**0.43**	**0.61**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.03**	<0.02	<0.02	**0.05**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	<0.01	**0.02**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW026_240702	0356_SW028_240702	0356_SW032_240702	0356_SW034_240702	0356_SW040_240704
				Sampling date / time	02-Jul-2024 12:40	02-Jul-2024 11:29	02-Jul-2024 08:45	02-Jul-2024 09:04	04-Jul-2024 10:34
Compound	CAS Number	LOR	Unit		ES2422149-040	ES2422149-041	ES2422149-042	ES2422149-043	ES2422149-044
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.87**	**0.01**	**0.67**	**1.33**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.79**	**0.01**	**0.67**	**1.16**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.85**	**0.01**	**0.67**	**1.30**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**105**	**102**	**99.0**	**101**
13C8-PFOA	----	0.02	%		**108**	**101**	**105**	**97.2**	**102**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW114_240704	0356_SW115_240702	0356_SW116_240704	----	----
				Sampling date / time	04-Jul-2024 12:37	02-Jul-2024 09:44	04-Jul-2024 12:50	----	----
Compound	CAS Number	LOR	Unit		ES2422149-045	ES2422149-046	ES2422149-047	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.02**	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.04**	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.68**	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.85**	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.04**	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.09**	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.03**	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0356_SW114_240704	0356_SW115_240702	0356_SW116_240704	----	----
			Sampling date / time	04-Jul-2024 12:37	02-Jul-2024 09:44	04-Jul-2024 12:50	----	----
Compound	CAS Number	LOR	Unit	ES2422149-045	ES2422149-046	ES2422149-047	--------	--------
				Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	**1.75**	<0.01	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	**1.53**	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	**1.71**	<0.01	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**101**	**105**	**108**	----	----
13C8-PFOA	----	0.02	%	**99.4**	**107**	**106**	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0356_QC100_240702	0356_QC106_240704	----	----	----
				Sampling date / time	02-Jul-2024 08:43	04-Jul-2024 10:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2422149-017	ES2422149-023	--------	--------	--------
					Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.21**	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.47**	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0356_QC100_240702	0356_QC106_240704	----	----	----
				Sampling date / time	02-Jul-2024 08:43	04-Jul-2024 10:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2422149-017	ES2422149-023	--------	--------	--------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.70**	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.68**	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.70**	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**91.2**	**97.3**	----	----	----
13C8-PFOA	----	0.02	%		**99.6**	**85.8**	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2422149**	Page	: 1 of 22
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Order number	: 60612562_8.1	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: 69432	Issue Date	: 25-Jul-2024
Sampler	: [redacted]		
Site	: Singleton		
Quote number	: SY/139/19 v4 60612562_8.1		
No. of samples received	: 50		
No. of samples analysed	: 50		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Chemist	Sydney Organics, Smithfield, NSW
	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW
	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918051)									
ES2422052-023	Anonymous	EA055: Moisture Content	----	0.1	%	7.2	7.3	2.0	0% - 20%
ES2422145-001	Anonymous	EA055: Moisture Content	----	0.1	%	44.4	47.7	7.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918070)									
ES2421084-015	Anonymous	EA055: Moisture Content	----	0.1	%	20.1	23.1	14.1	0% - 20%
ES2421907-005	Anonymous	EA055: Moisture Content	----	0.1	%	15.6	15.7	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5918071)									
ES2422149-028	0356_SD032_240702	EA055: Moisture Content	----	0.1	%	11.1	13.0	15.7	0% - 20%
ES2422285-003	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	12.4	11.7	5.7	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0014	0.0014	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2422149-025	0356_SD003_240702	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0045	0.0048	6.7	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914238) - continued									
ES2422149-025	0356_SD003_240702	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5914730)									
ES2421084-077	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2422149-035	0356_SD116_240704	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0016	0.0017	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2422149-025	0356_SD003_240702	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0002	0.0004	50.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5914730)									
ES2421084-077	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2422149-035	0356_SD116_240704	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	0356_SD003_240702	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914238) - continued									
ES2422149-025	0356_SD003_240702	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5914730)									
ES2421084-077	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-035	0356_SD116_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914238)									
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914238) - continued									
ES2422144-003	Anonymous	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-025	0356_SD003_240702	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5914730)									
ES2421084-077	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2422149-035	0356_SD116_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5909550)									
ES2422149-001	0356_MW008_240702	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.03	0.05	53.3	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5909550) - continued									
ES2422149-011	0356_MW109_240704	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5909552)									
ES2422149-022	0356_QC105_240704	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.04	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2422149-045	0356_SW114_240704	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5945176)									
ES2422149-023	0356_QC106_240704	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5909550)									
ES2422149-001	0356_MW008_240702	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5909550) - continued									
ES2422149-001	0356_MW008_240702	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422149-011	0356_MW109_240704	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5909552)									
ES2422149-022	0356_QC105_240704	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2422149-045	0356_SW114_240704	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5945176)									
ES2422149-023	0356_QC106_240704	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5945176) - continued									
ES2422149-023	0356_QC106_240704	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5909550)									
ES2422149-001	0356_MW008_240702	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422149-011	0356_MW109_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5909552)									
ES2422149-022	0356_QC105_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5909552) - continued									
ES2422149-022	0356_QC105_240704	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422149-045	0356_SW114_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5945176)									
ES2422149-023	0356_QC106_240704	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5909550)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5909550) - continued									
ES2422149-001	0356_MW008_240702	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422149-011	0356_MW109_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5909552)									
ES2422149-022	0356_QC105_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2422149-045	0356_SW114_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5945176)									
ES2422149-023	0356_QC106_240704	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5945176) - continued									
ES2422149-023	0356_QC106_240704	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5909550)									
ES2422149-001	0356_MW008_240702	EP231X: Sum of PFAS	----	0.01	µg/L	0.03	0.07	80.0	No Limit
ES2422149-011	0356_MW109_240704	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5909552)									
ES2422149-022	0356_QC105_240704	EP231X: Sum of PFAS	----	0.01	µg/L	0.09	0.09	0.0	No Limit
ES2422149-045	0356_SW114_240704	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5945176)									
ES2422149-023	0356_QC106_240704	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.5	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914730)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.4	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.1	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.9	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914730)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	91.0	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.1	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.7	71.0	131

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914730) - continued								
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.5	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.4	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	124	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.8	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.7	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914730)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	86.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	97.6	69.2	143

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914730)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	96.0	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	120	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5909550)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	94.7	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	103	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5909552)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	102	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	105	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5945176)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	85.5	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	93.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	83.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	99.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	97.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909550)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909550) - continued								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	112	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909552)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	108	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	103	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	107	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	111	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5945176)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	92.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	91.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	88.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	88.5	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	98.7	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	94.7	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.3	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	100.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909550)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.8	62.6	147

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909550) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	110	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	119	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909552)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	111	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	106	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	114	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5945176)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.9	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	87.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.7	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.1	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	99.8	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	102	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5909550)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	83.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	81.7	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	83.5	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	84.5	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5909552)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5909552) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	90.7	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	109	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	125	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	92.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5945176)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	92.5	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	114	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	122	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	112	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	94.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	88.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	93.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	67.5	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5914730)							
ES2421084-077	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	90.6	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	96.7	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	94.8	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	98.2	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	95.6	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	103	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	81.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	96.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	85.0	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	92.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.2	69.0	133

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914238) - continued							
ES2422144-003	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	96.5	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	88.9	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	98.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	122	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	111	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5914730)							
ES2421084-077	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	88.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	98.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	86.2	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	94.0	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	96.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	96.0	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.1	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	102	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	101	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	103	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	125	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	104	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	107	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	112	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	113	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	92.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	118	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914730)							
ES2421084-077	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	97.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	110	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	116	68.7	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5914730) - continued							
ES2421084-077	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	96.8	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.1	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	109	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914238)							
ES2422144-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	70.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	122	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	73.0	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5914730)							
ES2421084-077	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	79.9	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	103	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	123	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	82.9	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5909550)							
ES2422149-002	0356_MW011_240702	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	94.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	86.1	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	112	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	101	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	99.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5909552)							
ES2422149-036	0356_SW002_240702	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	88.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	97.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	95.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	90.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	84.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	87.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909550)							
ES2422149-002	0356_MW011_240702	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	108	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909550) - continued							
ES2422149-002	0356_MW011_240702	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	98.9	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	108	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	112	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	107	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	113	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	122	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5909552)							
ES2422149-036	0356_SW002_240702	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	118	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	125	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	95.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	94.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	105	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.9	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.3	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	85.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	92.5	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	97.3	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909550)							
ES2422149-002	0356_MW011_240702	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	93.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	84.8	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909552)							
ES2422149-036	0356_SW002_240702	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	100	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	96.4	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.3	62.6	147

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5909552) - continued							
ES2422149-036	0356_SW002_240702	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.6	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.3	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	93.7	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	84.7	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5909550)							
ES2422149-002	0356_MW011_240702	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	90.9	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	83.2	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	100	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5909552)							
ES2422149-036	0356_SW002_240702	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	80.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	90.1	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2422149**	Page	: 1 of 10
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_24	Date Samples Received	: 05-Jul-2024
Site	: Singleton	Issue Date	: 25-Jul-2024
Sampler	: [redacted]	No. of samples received	: 50
Order number	: 60612562_8.1	No. of samples analysed	: 50

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	---	---	---	**11-Jul-2024**	16-Jul-2024	✓
HDPE Soil Jar (EA055)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	---	---	---	**11-Jul-2024**	18-Jul-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
HDPE Soil Jar (EP231X)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
HDPE Soil Jar (EP231X)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
HDPE Soil Jar (EP231X)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
HDPE Soil Jar (EP231X)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_QC101_240702, 0356_SD002_240702, 0356_SD003_240702, 0356_SD032_240702, 0356_SD053_240702, 0356_SD055_240702, 0356_SD065_240702, 0356_SD115_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓
HDPE Soil Jar (EP231X)							
0356_QC104_240704, 0356_SD004_240704, 0356_SD005_240704, 0356_SD040_240704, 0356_SD114_240704, 0356_SD116_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	19-Aug-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0356_MW008_240702, 0356_MW011_240702, 0356_MW048_240702, 0356_MW050_240702, 0356_MW052_240702, 0356_MW059_240702, 0356_MW102_240702, 0356_MW167_240702, 0356_QC100_240702, 0356_QC102_240702, 0356_SW002_240702, 0356_SW003_240724, 0356_SW026_240702, 0356_SW028_240702, 0356_SW032_240702, 0356_SW034_240702, 0356_SW115_240702, 0356_QC300_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	29-Dec-2024	✓
HDPE (no PTFE) (EP231X) 0356_QC301_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
HDPE (no PTFE) (EP231X) 0356_MW063_240704, 0356_MW071_240704, 0356_MW073_240704, 0356_MW109_240704, 0356_MW110_240704, 0356_MW114_240704, 0356_MW115_240704, 0356_MW118_240704, 0356_QC103_240704, 0356_QC105_240704, 0356_SW004_240704, 0356_SW005_240704, 0356_SW040_240704, 0356_SW114_240704, 0356_SW116_240704, 0356_QC302_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
HDPE (no PTFE) (EP231X) 0356_QC106_240704	**04-Jul-2024**	**24-Jul-2024**	31-Dec-2024	✓	**25-Jul-2024**	31-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_MW008_240702, 0356_MW011_240702, 0356_MW048_240702, 0356_MW050_240702, 0356_MW052_240702, 0356_MW059_240702, 0356_MW102_240702, 0356_MW167_240702, 0356_QC100_240702, 0356_QC102_240702, 0356_SW002_240702, 0356_SW003_240724, 0356_SW026_240702, 0356_SW028_240702, 0356_SW032_240702, 0356_SW034_240702, 0356_SW115_240702, 0356_QC300_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	29-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_QC301_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_MW063_240704, 0356_MW071_240704, 0356_MW073_240704, 0356_MW109_240704, 0356_MW110_240704, 0356_MW114_240704, 0356_MW115_240704, 0356_MW118_240704, 0356_QC103_240704, 0356_QC105_240704, 0356_SW004_240704, 0356_SW005_240704, 0356_SW040_240704, 0356_SW114_240704, 0356_SW116_240704, 0356_QC302_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_QC106_240704	**04-Jul-2024**	**24-Jul-2024**	31-Dec-2024	✓	**25-Jul-2024**	31-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0356_MW008_240702,	0356_MW011_240702,	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	29-Dec-2024	✓
0356_MW048_240702,	0356_MW050_240702,							
0356_MW052_240702,	0356_MW059_240702,							
0356_MW102_240702,	0356_MW167_240702,							
0356_QC100_240702,	0356_QC102_240702,							
0356_SW002_240702,	0356_SW003_240724,							
0356_SW026_240702,	0356_SW028_240702,							
0356_SW032_240702,	0356_SW034_240702,							
0356_SW115_240702,	0356_QC300_240702							
HDPE (no PTFE) (EP231X)								
0356_QC301_240703		**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
HDPE (no PTFE) (EP231X)								
0356_MW063_240704,	0356_MW071_240704,	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
0356_MW073_240704,	0356_MW109_240704,							
0356_MW110_240704,	0356_MW114_240704,							
0356_MW115_240704,	0356_MW118_240704,							
0356_QC103_240704,	0356_QC105_240704,							
0356_SW004_240704,	0356_SW005_240704,							
0356_SW040_240704,	0356_SW114_240704,							
0356_SW116_240704,	0356_QC302_240704							
HDPE (no PTFE) (EP231X)								
0356_QC106_240704		**04-Jul-2024**	**24-Jul-2024**	31-Dec-2024	✓	**25-Jul-2024**	31-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0356_MW008_240702,	0356_MW011_240702,	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	29-Dec-2024	✓
0356_MW048_240702,	0356_MW050_240702,							
0356_MW052_240702,	0356_MW059_240702,							
0356_MW102_240702,	0356_MW167_240702,							
0356_QC100_240702,	0356_QC102_240702,							
0356_SW002_240702,	0356_SW003_240724,							
0356_SW026_240702,	0356_SW028_240702,							
0356_SW032_240702,	0356_SW034_240702,							
0356_SW115_240702,	0356_QC300_240702							
HDPE (no PTFE) (EP231X)								
0356_QC301_240703		**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
HDPE (no PTFE) (EP231X)								
0356_MW063_240704,	0356_MW071_240704,	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
0356_MW073_240704,	0356_MW109_240704,							
0356_MW110_240704,	0356_MW114_240704,							
0356_MW115_240704,	0356_MW118_240704,							
0356_QC103_240704,	0356_QC105_240704,							
0356_SW004_240704,	0356_SW005_240704,							
0356_SW040_240704,	0356_SW114_240704,							
0356_SW116_240704,	0356_QC302_240704							
HDPE (no PTFE) (EP231X)								
0356_QC106_240704		**04-Jul-2024**	**24-Jul-2024**	31-Dec-2024	✓	**25-Jul-2024**	31-Dec-2024	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_MW008_240702, 0356_MW011_240702, 0356_MW048_240702, 0356_MW050_240702, 0356_MW052_240702, 0356_MW059_240702, 0356_MW102_240702, 0356_MW167_240702, 0356_QC100_240702, 0356_QC102_240702, 0356_SW002_240702, 0356_SW003_240724, 0356_SW026_240702, 0356_SW028_240702, 0356_SW032_240702, 0356_SW034_240702, 0356_SW115_240702, 0356_QC300_240702	**02-Jul-2024**	**10-Jul-2024**	29-Dec-2024	✓	**12-Jul-2024**	29-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_QC301_240703	**03-Jul-2024**	**10-Jul-2024**	30-Dec-2024	✓	**12-Jul-2024**	30-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_MW063_240704, 0356_MW071_240704, 0356_MW073_240704, 0356_MW109_240704, 0356_MW110_240704, 0356_MW114_240704, 0356_MW115_240704, 0356_MW118_240704, 0356_QC103_240704, 0356_QC105_240704, 0356_SW004_240704, 0356_SW005_240704, 0356_SW040_240704, 0356_SW114_240704, 0356_SW116_240704, 0356_QC302_240704	**04-Jul-2024**	**10-Jul-2024**	31-Dec-2024	✓	**12-Jul-2024**	31-Dec-2024	✓
HDPE (no PTFE) (EP231X)							
0356_QC106_240704	**04-Jul-2024**	**24-Jul-2024**	31-Dec-2024	✓	**25-Jul-2024**	31-Dec-2024	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	6	56	**10.71**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	36	**13.89**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	36	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	36	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	36	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2422149**		
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: [redacted]
Facsimile	: ----	Facsimile	: [redacted]
Project	: NSW_0356_PFASOMP_24	Page	: 1 of 4
Order number	: 60612562_8.1	Quote number	: ES2021AECOMAU0030 (SY/139/19 v4 60612562_8.1)
C-O-C number	: 69432	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Singleton		
Sampler	: [redacted]		

Dates

Date Samples Received	: 05-Jul-2024 09:00	Issue Date	: 23-Jul-2024
Client Requested Due Date	: 12-Jul-2024	Scheduled Reporting Date	: **12-Jul-2024**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 50 / 50

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2422149-018	02-Jul-2024 08:44	0356_QC101_240702	✓	✓
ES2422149-021	04-Jul-2024 08:36	0356_QC104_240704	✓	✓
ES2422149-024	02-Jul-2024 10:11	0356_SD002_240702	✓	✓
ES2422149-025	02-Jul-2024 10:58	0356_SD003_240702	✓	✓
ES2422149-026	04-Jul-2024 08:36	0356_SD004_240704	✓	✓
ES2422149-027	04-Jul-2024 09:10	0356_SD005_240704	✓	✓
ES2422149-028	02-Jul-2024 08:44	0356_SD032_240702	✓	✓
ES2422149-029	04-Jul-2024 10:33	0356_SD040_240704	✓	✓
ES2422149-030	02-Jul-2024 12:41	0356_SD053_240702	✓	✓
ES2422149-031	02-Jul-2024 11:30	0356_SD055_240702	✓	✓
ES2422149-032	02-Jul-2024 09:04	0356_SD065_240702	✓	✓
ES2422149-033	04-Jul-2024 12:37	0356_SD114_240704	✓	✓
ES2422149-034	02-Jul-2024 09:44	0356_SD115_240702	✓	✓
ES2422149-035	04-Jul-2024 12:51	0356_SD116_240704	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422149-001	02-Jul-2024 12:16	0356_MW008_240702	✓
ES2422149-002	02-Jul-2024 12:02	0356_MW011_240702	✓
ES2422149-003	02-Jul-2024 10:25	0356_MW048_240702	✓
ES2422149-004	02-Jul-2024 10:04	0356_MW050_240702	✓
ES2422149-005	02-Jul-2024 10:39	0356_MW052_240702	✓
ES2422149-006	02-Jul-2024 11:49	0356_MW059_240702	✓
ES2422149-007	04-Jul-2024 09:22	0356_MW063_240704	✓
ES2422149-008	04-Jul-2024 10:01	0356_MW071_240704	✓
ES2422149-009	04-Jul-2024 10:08	0356_MW073_240704	✓

			WATER - EP231X PFAS - Full Suite (31 analytes)
ES2422149-010	02-Jul-2024 09:33	0356_MW102_240702	✓
ES2422149-011	04-Jul-2024 11:20	0356_MW109_240704	✓
ES2422149-012	04-Jul-2024 11:20	0356_MW110_240704	✓
ES2422149-013	04-Jul-2024 11:40	0356_MW114_240704	✓
ES2422149-014	04-Jul-2024 11:40	0356_MW115_240704	✓
ES2422149-015	04-Jul-2024 12:17	0356_MW118_240704	✓
ES2422149-016	02-Jul-2024 12:34	0356_MW167_240702	✓
ES2422149-017	02-Jul-2024 08:43	0356_QC100_240702	✓
ES2422149-019	02-Jul-2024 09:34	0356_QC102_240702	✓
ES2422149-020	04-Jul-2024 08:37	0356_QC103_240704	✓
ES2422149-022	04-Jul-2024 09:23	0356_QC105_240704	✓
ES2422149-023	04-Jul-2024 10:09	0356_QC106_240704	✓
ES2422149-036	02-Jul-2024 10:05	0356_SW002_240702	✓
ES2422149-037	02-Jul-2024 10:57	0356_SW003_240724	✓
ES2422149-038	04-Jul-2024 08:38	0356_SW004_240704	✓
ES2422149-039	04-Jul-2024 09:03	0356_SW005_240704	✓
ES2422149-040	02-Jul-2024 12:40	0356_SW026_240702	✓
ES2422149-041	02-Jul-2024 11:29	0356_SW028_240702	✓
ES2422149-042	02-Jul-2024 08:45	0356_SW032_240702	✓
ES2422149-043	02-Jul-2024 09:04	0356_SW034_240702	✓
ES2422149-044	04-Jul-2024 10:34	0356_SW040_240704	✓
ES2422149-045	04-Jul-2024 12:37	0356_SW114_240704	✓
ES2422149-046	02-Jul-2024 09:44	0356_SW115_240702	✓
ES2422149-047	04-Jul-2024 12:50	0356_SW116_240704	✓
ES2422149-048	02-Jul-2024 14:47	0356_QC300_240702	✓
ES2422149-049	03-Jul-2024 14:45	0356_QC301_240703	✓
ES2422149-050	04-Jul-2024 12:55	0356_QC302_240704	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- A4 - AU Tax Invoice (INV) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

- *AU Certificate of Analysis - NATA (COA) — Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email
- Chain of Custody (CoC) (COC) — Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email
- EDI Format - ESDAT (ESDAT) — Email

[redacted]

ALSCompass SAMPLING Intelligence

ALS

E-MAILED

Environmental Division Sydney
Work Order Reference
ES2422149

[redacted]

Custody Document for Submissions via ALS Compass App

LAB OF ORIGIN:
NEWCASTLE

Project: 60612562 Client: AECOM Project Manager: [redacted]
Phone: ([redacted])

ALS Compass COC Reference: 69432 # Samples: 50 Sampler: [redacted]
Phone: ([redacted])

Turnaround Requirements: Standard ____ Urgent ____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?	0.5	°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]	[redacted]	[redacted]	[redacted]
Date / Time: 9:00am 5/7/24	Date / Time: 5/7 900	Date / Time: 5/7 11am	Date / Time: 5/7/24 1945

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

Environmental Division Sydney

Work Order Reference

ES2422149

[redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW008_240702		02/07/2024 12:16 PM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0356_MW011_240702		02/07/2024 12:02 PM	WATER	ALS: 4 Non ALS: 0	No		X		
003	0356_MW048_240702		02/07/2024 10:25 AM	WATER	ALS: 4 Non ALS: 0	No		X		
004	0356_MW050_240702		02/07/2024 10:04 AM	WATER	ALS: 4 Non ALS: 0	No		X		
005	0356_MW052_240702		02/07/2024 10:39 AM	WATER	ALS: 4 Non ALS: 0	No		X		
006	0356_MW059_240702		02/07/2024 11:49 AM	WATER	ALS: 4 Non ALS: 0	No		X		
007	0356_MW063_240704		04/07/2024 09:22 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: [redacted] 5/7/24 1454	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU003 0

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 0.5

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0356_MW071_240704		04/07/2024 10:01 AM	WATER	ALS: 4 Non ALS: 0	No		X		
009	0356_MW073_240704		04/07/2024 10:08 AM	WATER	ALS: 4 Non ALS: 0	No		X		
010	0356_MW102_240702		02/07/2024 09:33 AM	WATER	ALS: 4 Non ALS: 0	No		X		
011	0356_MW109_240704		04/07/2024 11:20 AM	WATER	ALS: 4 Non ALS: 0	No		X		
012	0356_MW110_240704		04/07/2024 11:20 AM	WATER	ALS: 4 Non ALS: 0	No		X		
013	0356_MW114_240704		04/07/2024 11:40 AM	WATER	ALS: 4 Non ALS: 0	No		X		
014	0356_MW115_240704		04/07/2024 11:40 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU003 0

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0356_MW119_240704		04/07/2024 12:17 PM	WATER	ALS: 4 Non ALS: 0	No		X		
016	0356_MW167_240702		02/07/2024 12:34 PM	WATER	ALS: 4 Non ALS: 0	No		X		
017	0356_QC100_240702		02/07/2024 08:43 AM	WATER	ALS: 4 Non ALS: 0	No		X		
018	0356_QC101_240702		02/07/2024 08:44 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
019	0356_QC102_240702		02/07/2024 09:34 AM	WATER	ALS: 4 Non ALS: 0	No		X		
020	0356_QC103_240704		04/07/2024 08:37 AM	WATER	ALS: 4 Non ALS: 0	No		X		
021	0356_QC104_240704		04/07/2024 08:36 AM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0356_QC105_240704		04/07/2024 09:23 AM	WATER	ALS: 4 Non ALS: 0	No		X		
023	0356_QC106_240704		04/07/2024 10:09 AM	SOIL	ALS: 4 Non ALS: 0	No		X		
024	0356_SD002_240702		02/07/2024 10:11 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
025	0356_SD003_240702		02/07/2024 10:58 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
026	0356_SD004_240704		04/07/2024 08:36 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
027	0356_SD005_240704		04/07/2024 08:47 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
028	0356_SD032_240702		02/07/2024 08:44 AM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 69432 *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1941	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0356_SD040_240704		04/07/2024 10:33 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
030	0356_SD053_240702		02/07/2024 12:41 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
031	0356_SD055_240702		02/07/2024 11:30 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
032	0356_SD065_240702		02/07/2024 09:04 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
033	0356_SD114_240704		04/07/2024 12:37 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
034	0356_SD115_240702		02/07/2024 09:44 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
035	0356_SD116_240704		04/07/2024 12:51 PM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
035	0356_SW002_240702		02/07/2024 10:05 AM	WATER	ALS: 4 Non ALS: 0	No		X		
037	0356_SW003_240724		02/07/2024 10:57 AM	WATER	ALS: 4 Non ALS: 0	No		X		
038	0356_SW004_240704		04/07/2024 08:38 AM	WATER	ALS: 4 Non ALS: 0	No		X		
039	0356_SW005_240704		04/07/2024 08:48 AM	WATER	ALS: 4 Non ALS: 0	No		X		
040	0356_SW026_240702		02/07/2024 12:40 PM	WATER	ALS: 4 Non ALS: 0	No		X		
041	0356_SW028_240702		02/07/2024 11:29 AM	WATER	ALS: 4 Non ALS: 0	No		X		
042	0356_SW032_240702		02/07/2024 08:45 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 19:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0356_SW034_240702		02/07/2024 09:04 AM	WATER	ALS: 4 Non ALS: 0	No		X		
044	0356_SW040_240704		04/07/2024 10:34 AM	WATER	ALS: 4 Non ALS: 0	No		X		
045	0356_SW114_240704		04/07/2024 12:37 PM	WATER	ALS: 4 Non ALS: 0	No		X		
046	0356_SW115_240702		02/07/2024 09:44 AM	WATER	ALS: 4 Non ALS: 0	No		X		
047	0356_SW116_240704		04/07/2024 12:50 PM	WATER	ALS: 4 Non ALS: 0	No		X		
048	0356_QC300_240702		03/07/2024 02:47 PM	WATER	ALS: 4 Non ALS: 0	No		X		
049	0356_QC301_240703		03/07/2024 02:45 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1145	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 0.5

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0356_QC302_240704		04/07/2024 12:55 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMA0003 0

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 2.2 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW008_240702	HDPE (no PTFE)	20 mL	00352309050097	Grey	No	
001	0356_MW008_240702	HDPE (no PTFE)	20 mL	00352309050259	Grey	No	
001	0356_MW008_240702	HDPE (no PTFE)	20 mL	00352309050291	Grey	No	
001	0356_MW008_240702	HDPE (no PTFE)	20 mL	00352309050211	Grey	No	
002	0356_MW011_240702	HDPE (no PTFE)	20 mL	00352309050144	Grey	No	
002	0356_MW011_240702	HDPE (no PTFE)	20 mL	00352309050095	Grey	No	
002	0356_MW011_240702	HDPE (no PTFE)	20 mL	00352309050316	Grey	No	
002	0356_MW011_240702	HDPE (no PTFE)	20 mL	00352309050239	Grey	No	
003	0356_MW048_240702	HDPE (no PTFE)	20 mL	00352309050350	Grey	No	
003	0356_MW048_240702	HDPE (no PTFE)	20 mL	00352309050132	Grey	No	
003	0356_MW048_240702	HDPE (no PTFE)	20 mL	00352309050315	Grey	No	
003	0356_MW048_240702	HDPE (no PTFE)	20 mL	00352309050331	Grey	No	
004	0356_MW050_240702	HDPE (no PTFE)	20 mL	00352309050274	Grey	No	
004	0356_MW050_240702	HDPE (no PTFE)	20 mL	00352309050246	Grey	No	
004	0356_MW050_240702	HDPE (no PTFE)	20 mL	00352309050306	Grey	No	
004	0356_MW050_240702	HDPE (no PTFE)	20 mL	00352309050311	Grey	No	
005	0356_MW052_240702	HDPE (no PTFE)	20 mL	00352309050124	Grey	No	
005	0356_MW052_240702	HDPE (no PTFE)	20 mL	00352309050175	Grey	No	
005	0356_MW052_240702	HDPE (no PTFE)	20 mL	00352309050355	Grey	No	
005	0356_MW052_240702	HDPE (no PTFE)	20 mL	00352309050142	Grey	No	
006	0356_MW059_240702	HDPE (no PTFE)	20 mL	00352309050141	Grey	No	
006	0356_MW059_240702	HDPE (no PTFE)	20 mL	00352309050338	Grey	No	
006	0356_MW059_240702	HDPE (no PTFE)	20 mL	00352309050139	Grey	No	
006	0356_MW059_240702	HDPE (no PTFE)	20 mL	00352309050282	Grey	No	
007	0356_MW063_240704	HDPE (no PTFE)	20 mL	00352309050718	Grey	No	
007	0356_MW063_240704	HDPE (no PTFE)	20 mL	00352101040478	Grey	No	

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RE[redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/17/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU003 0

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

007	0356_MW063_240704	HDPE (no PTFE)	20 mL	00352101040504	Grey	No	
007	0356_MW063_240704	HDPE (no PTFE)	20 mL	00352309050846	Grey	No	
008	0356_MW071_240704	HDPE (no PTFE)	20 mL	00352101040764	Grey	No	
008	0356_MW071_240704	HDPE (no PTFE)	20 mL	00352101040753	Grey	No	
008	0356_MW071_240704	HDPE (no PTFE)	20 mL	00352309051234	Grey	No	
008	0356_MW071_240704	HDPE (no PTFE)	20 mL	00352309050899	Grey	No	
009	0356_MW073_240704	HDPE (no PTFE)	20 mL	00351221022478	Grey	No	
009	0356_MW073_240704	HDPE (no PTFE)	20 mL	00350621001691	Grey	No	
009	0356_MW073_240704	HDPE (no PTFE)	20 mL	00351221022331	Grey	No	
009	0356_MW073_240704	HDPE (no PTFE)	20 mL	00350621001616	Grey	No	
010	0356_MW102_240702	HDPE (no PTFE)	20 mL	00352312028482	Grey	No	
010	0356_MW102_240702	HDPE (no PTFE)	20 mL	00352309050233	Grey	No	
010	0356_MW102_240702	HDPE (no PTFE)	20 mL	00352312028205	Grey	No	
010	0356_MW102_240702	HDPE (no PTFE)	20 mL	00352309050288	Grey	No	
011	0356_MW109_240704	HDPE (no PTFE)	20 mL	00352309050088	Grey	No	
011	0356_MW109_240704	HDPE (no PTFE)	20 mL	00351221022375	Grey	No	
011	0356_MW109_240704	HDPE (no PTFE)	20 mL	00352309050096	Grey	No	
011	0356_MW109_240704	HDPE (no PTFE)	20 mL	00351221022435	Grey	No	
012	0356_MW110_240704	HDPE (no PTFE)	20 mL	00350621036720	Grey	No	
012	0356_MW110_240704	HDPE (no PTFE)	20 mL	00350822059469	Grey	No	
012	0356_MW110_240704	HDPE (no PTFE)	20 mL	00350621036920	Grey	No	
012	0356_MW110_240704	HDPE (no PTFE)	20 mL	00350822059373	Grey	No	
013	0356_MW114_240704	HDPE (no PTFE)	20 mL	00352309050203	Grey	No	
013	0356_MW114_240704	HDPE (no PTFE)	20 mL	00352101040259	Grey	No	
013	0356_MW114_240704	HDPE (no PTFE)	20 mL	00352309050270	Grey	No	
013	0356_MW114_240704	HDPE (no PTFE)	20 mL	00352101040598	Grey	No	
014	0356_MW115_240704	HDPE (no PTFE)	20 mL	00352309050177	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 [redacted]	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

014	0356_MW115_240704	HDPE (no PTFE)	20 mL	00352309050709	Grey	No	
014	0356_MW115_240704	HDPE (no PTFE)	20 mL	00352309050751	Grey	No	
014	0356_MW115_240704	HDPE (no PTFE)	20 mL	00352309050182	Grey	No	
015	0356_MW118_240704	HDPE (no PTFE)	20 mL	00352309050080	Grey	No	
015	0356_MW118_240704	HDPE (no PTFE)	20 mL	00350822036226	Grey	No	
015	0356_MW118_240704	HDPE (no PTFE)	20 mL	00352309050250	Grey	No	
015	0356_MW118_240704	HDPE (no PTFE)	20 mL	00350822059596	Grey	No	
016	0356_MW167_240702	HDPE (no PTFE)	20 mL	00352309050328	Grey	No	
016	0356_MW167_240702	HDPE (no PTFE)	20 mL	00352309050174	Grey	No	
016	0356_MW167_240702	HDPE (no PTFE)	20 mL	00352309050341	Grey	No	
016	0356_MW167_240702	HDPE (no PTFE)	20 mL	00352309050212	Grey	No	
017	0356_QC100_240702	HDPE (no PTFE)	20 mL	00352309050984	Grey	No	
017	0356_QC100_240702	HDPE (no PTFE)	20 mL	00352309050929	Grey	No	
017	0356_QC100_240702	HDPE (no PTFE)	20 mL	00352309051203	Grey	No	
017	0356_QC100_240702	HDPE (no PTFE)	20 mL	00352309051200	Grey	No	
018	0356_QC101_240702	HDPE Soil Jar	200 mL	00621222074297	Grey	No	
019	0356_QC102_240702	HDPE (no PTFE)	20 mL	00352309050278	Grey	No	
019	0356_QC102_240702	HDPE (no PTFE)	20 mL	00352309050366	Grey	No	
019	0356_QC102_240702	HDPE (no PTFE)	20 mL	00352309050157	Grey	No	
019	0356_QC102_240702	HDPE (no PTFE)	20 mL	00352309050319	Grey	No	
020	0356_QC103_240704	HDPE (no PTFE)	20 mL	00350822036091	Grey	No	
020	0356_QC103_240704	HDPE (no PTFE)	20 mL	00352309050937	Grey	No	
020	0356_QC103_240704	HDPE (no PTFE)	20 mL	00352309050739	Grey	No	
020	0356_QC103_240704	HDPE (no PTFE)	20 mL	00350822059610	Grey	No	
021	0356_QC104_240704	HDPE Soil Jar	200 mL	00621222074254	Grey	No	
022	0356_QC105_240704	HDPE (no PTFE)	20 mL	00352309051090	Grey	No	
022	0356_QC105_240704	HDPE (no PTFE)	20 mL	00352309051149	Grey	No	

CHAIN OF CUSTODY

COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RE [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 05 °C

Other comments:

022	0356_QC105_240704	HDPE (no PTFE)	20 mL	00352309050695	Grey	No	
022	0356_QC105_240704	HDPE (no PTFE)	20 mL	00352309051208	Grey	No	
023	0356_QC106_240704	HDPE (no PTFE)	20 mL	00350621036579	Grey	No	
023	0356_QC106_240704	HDPE (no PTFE)	20 mL	00350621036876	Grey	No	
023	0356_QC106_240704	HDPE (no PTFE)	20 mL	00350621034224	Grey	No	
023	0356_QC106_240704	HDPE (no PTFE)	20 mL	00350621034222	Grey	No	
024	0356_SD002_240702	HDPE Soil Jar	200 mL	00621222093059	Grey	No	
025	0356_SD003_240702	HDPE Soil Jar	200 mL	00621222074316	Grey	No	
026	0356_SD004_240704	HDPE Soil Jar	200 mL	00621222074285	Grey	No	
027	0356_SD005_240704	HDPE Soil Jar	200 mL	00621222074342	Grey	No	
028	0356_SD032_240702	HDPE Soil Jar	200 mL	00621222093027	Grey	No	
029	0356_SD040_240704	HDPE Soil Jar	200 mL	00621222074335	Grey	No	
030	0356_SD053_240702	HDPE Soil Jar	200 mL	00621222097924	Grey	No	
031	0356_SD055_240702	HDPE Soil Jar	200 mL	00621222074287	Grey	No	
032	0356_SD065_240702	HDPE Soil Jar	200 mL	00621222074256	Grey	No	
033	0356_SD114_240704	HDPE Soil Jar	200 mL	00621222074340	Grey	No	
034	0356_SD115_240702	HDPE Soil Jar	200 mL	00621222074331	Grey	No	
035	0356_SD116_240704	HDPE Soil Jar	200 mL	00621222097954	Grey	No	
036	0356_SW002_240702	HDPE (no PTFE)	20 mL	00352309050272	Grey	No	
036	0356_SW002_240702	HDPE (no PTFE)	20 mL	00352309050335	Grey	No	
036	0356_SW002_240702	HDPE (no PTFE)	20 mL	00352309050353	Grey	No	
036	0356_SW002_240702	HDPE (no PTFE)	20 mL	00352309050131	Grey	No	
037	0356_SW003_240724	HDPE (no PTFE)	20 mL	00352309050279	Grey	No	
037	0356_SW003_240724	HDPE (no PTFE)	20 mL	00352309050267	Grey	No	
037	0356_SW003_240724	HDPE (no PTFE)	20 mL	00352309050217	Grey	No	
037	0356_SW003_240724	HDPE (no PTFE)	20 mL	00352309050269	Grey	No	
038	0356_SW004_240704	HDPE (no PTFE)	20 mL	00352101040399	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RE [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0003 0

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes (No) N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

038	0356_SW004_240704	HDPE (no PTFE)	20 mL	00352101040424	Grey	No	
038	0356_SW004_240704	HDPE (no PTFE)	20 mL	00352101060009	Grey	No	
038	0356_SW004_240704	HDPE (no PTFE)	20 mL	00352101040748	Grey	No	
039	0356_SW005_240704	HDPE (no PTFE)	20 mL	00350621036441	Grey	No	
039	0356_SW005_240704	HDPE (no PTFE)	20 mL	00352101040671	Grey	No	
039	0356_SW005_240704	HDPE (no PTFE)	20 mL	00350621036740	Grey	No	
039	0356_SW005_240704	HDPE (no PTFE)	20 mL	00352101040330	Grey	No	
040	0356_SW026_240702	HDPE (no PTFE)	20 mL	00352309050265	Grey	No	
040	0356_SW026_240702	HDPE (no PTFE)	20 mL	00352309050313	Grey	No	
040	0356_SW026_240702	HDPE (no PTFE)	20 mL	00352309050297	Grey	No	
040	0356_SW026_240702	HDPE (no PTFE)	20 mL	00352309050091	Grey	No	
041	0356_SW028_240702	HDPE (no PTFE)	20 mL	00352312028208	Grey	No	
041	0356_SW028_240702	HDPE (no PTFE)	20 mL	00352312028527	Grey	No	
041	0356_SW028_240702	HDPE (no PTFE)	20 mL	00352309049630	Grey	No	
041	0356_SW028_240702	HDPE (no PTFE)	20 mL	00352309042746	Grey	No	
042	0356_SW032_240702	HDPE (no PTFE)	20 mL	00352309050817	Grey	No	
042	0356_SW032_240702	HDPE (no PTFE)	20 mL	00352101040770	Grey	No	
042	0356_SW032_240702	HDPE (no PTFE)	20 mL	00352309050732	Grey	No	
042	0356_SW032_240702	HDPE (no PTFE)	20 mL	00352101040736	Grey	No	
043	0356_SW034_240702	HDPE (no PTFE)	20 mL	00352101040465	Grey	No	
043	0356_SW034_240702	HDPE (no PTFE)	20 mL	00352101040696	Grey	No	
043	0356_SW034_240702	HDPE (no PTFE)	20 mL	00350621001467	Grey	No	
043	0356_SW034_240702	HDPE (no PTFE)	20 mL	00350621001297	Grey	No	
044	0356_SW040_240704	HDPE (no PTFE)	20 mL	00352309050280	Grey	No	
044	0356_SW040_240704	HDPE (no PTFE)	20 mL	00352309050220	Grey	No	
044	0356_SW040_240704	HDPE (no PTFE)	20 mL	00352101040574	Grey	No	
044	0356_SW040_240704	HDPE (no PTFE)	20 mL	00352101040420	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 69432 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RE[redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/7/24 1945	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_24

SITE: Singleton

ORDER NO: 60612562_8.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: [redacted]

QUOTE NO: SY/139/19 v4 60612562_8.1 / ES2021AECOMAU0030

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.5 °C

Other comments:

045	0356_SW114_240704	HDPE (no PTFE)	20 mL	00352309050300	Grey	No	
045	0356_SW114_240704	HDPE (no PTFE)	20 mL	00352101040362	Grey	No	
045	0356_SW114_240704	HDPE (no PTFE)	20 mL	00352309050281	Grey	No	
045	0356_SW114_240704	HDPE (no PTFE)	20 mL	00352101040400	Grey	No	
046	0356_SW115_240702	HDPE (no PTFE)	20 mL	00352309050358	Grey	No	
046	0356_SW115_240702	HDPE (no PTFE)	20 mL	00352309050256	Grey	No	
046	0356_SW115_240702	HDPE (no PTFE)	20 mL	00352309050171	Grey	No	
046	0356_SW115_240702	HDPE (no PTFE)	20 mL	00352309050130	Grey	No	
047	0356_SW116_240704	HDPE (no PTFE)	20 mL	00350621034337	Grey	No	
047	0356_SW116_240704	HDPE (no PTFE)	20 mL	00350522007022	Grey	No	
047	0356_SW116_240704	HDPE (no PTFE)	20 mL	00350621034245	Grey	No	
047	0356_SW116_240704	HDPE (no PTFE)	20 mL	00350522026577	Grey	No	
048	0356_QC300_240702	HDPE (no PTFE)	20 mL	00352309050226	Grey	No	
048	0356_QC300_240702	HDPE (no PTFE)	20 mL	00352309050345	Grey	No	
048	0356_QC300_240702	HDPE (no PTFE)	20 mL	00352309050100	Grey	No	
048	0356_QC300_240702	HDPE (no PTFE)	20 mL	00352309050266	Grey	No	
049	0356_QC301_240703	HDPE (no PTFE)	20 mL	00352309050856	Grey	No	
049	0356_QC301_240703	HDPE (no PTFE)	20 mL	00352309051318	Grey	No	
049	0356_QC301_240703	HDPE (no PTFE)	20 mL	00352309050833	Grey	No	
049	0356_QC301_240703	HDPE (no PTFE)	20 mL	00352309051309	Grey	No	
050	0356_QC302_240704	HDPE (no PTFE)	20 mL	00350621036707	Grey	No	
050	0356_QC302_240704	HDPE (no PTFE)	20 mL	00352309051301	Grey	No	
050	0356_QC302_240704	HDPE (no PTFE)	20 mL	00352309050894	Grey	No	
050	0356_QC302_240704	HDPE (no PTFE)	20 mL	00350621036693	Grey	No	

Total Bottle Count: ALS: 158, Non ALS: 0

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
[redacted]

CERTIFICATE OF ANALYSIS 355926

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**NSW_0356_PFASOMP_24**
Number of Samples	5 Water, 2 Soil
Date samples received	08/07/2024
Date completed instructions received	08/07/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	15/07/2024
Date of Issue	15/07/2024

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
[redacted], Operation Manager
[redacted], Chemist (FAS)

Authorised By
[redacted] Laboratory Manager

PFAS in Waters Extended						
Our Reference		355926-1	355926-3	355926-4	355926-6	355926-7
Your Reference	UNITS	0356_QC200_240702	0356_QC202_240702	0356_QC203_240704	0356_QC205_240704	0356_QC206_240704
Date Sampled		02/07/2024	02/07/2024	04/07/2024	04/07/2024	04/07/2024
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Date analysed	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Perfluorobutanesulfonic acid	µg/L	0.02	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.22	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.36	<0.01	<0.01	0.04	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	µg/L	0.02	<0.01	<0.01	0.05	<0.01
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	100	100	102	106	102
Surrogate $^{13}C_2$ *PFOA*	%	95	101	101	102	106
Extracted ISTD $^{13}C_3$ *PFBS*	%	103	94	101	100	95
Extracted ISTD $^{18}O_2$ *PFHxS*	%	98	95	91	100	98
Extracted ISTD $^{13}C_4$ *PFOS*	%	101	98	92	94	99

PFAS in Waters Extended						
Our Reference		355926-1	355926-3	355926-4	355926-6	355926-7
Your Reference	UNITS	0356_QC200_240702	0356_QC202_240702	0356_QC203_240704	0356_QC205_240704	0356_QC206_240704
Date Sampled		02/07/2024	02/07/2024	04/07/2024	04/07/2024	04/07/2024
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	90	91	77	96	90
Extracted ISTD $^{13}C_3$ *PFPeA*	%	105	86	99	87	85
Extracted ISTD $^{13}C_2$ *PFHxA*	%	104	90	98	92	91
Extracted ISTD $^{13}C_4$ *PFHpA*	%	108	98	101	97	93
Extracted ISTD $^{13}C_4$ *PFOA*	%	109	102	104	97	92
Extracted ISTD $^{13}C_5$ *PFNA*	%	111	102	107	98	94
Extracted ISTD $^{13}C_2$ *PFDA*	%	114	95	103	89	92
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	129	101	109	96	102
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	123	111	107	96	117
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	91	81	88	79	73
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	127	71	122	71	68
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	122	101	138	101	75
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	183	117	121	92	93
Extracted ISTD $^{13}C_8$ *FOSA*	%	111	102	104	102	100
Extracted ISTD d_3 *N MeFOSA*	%	98	97	99	95	98
Extracted ISTD d_5 *N EtFOSA*	%	91	91	94	92	90
Extracted ISTD d_7 *N MeFOSE*	%	92	97	93	93	96
Extracted ISTD d_9 *N EtFOSE*	%	95	96	95	95	94
Extracted ISTD d_3 *N MeFOSAA*	%	110	93	100	94	90
Extracted ISTD d_5 *N EtFOSAA*	%	116	96	96	96	95
Total Positive PFHxS & PFOS	µg/L	0.58	<0.01	<0.01	0.04	<0.01
Total Positive PFOA & PFOS	µg/L	0.37	<0.01	<0.01	0.04	<0.01
Total Positive PFAS	µg/L	0.64	<0.01	<0.01	0.1	<0.01

PFAS in Soils Extended			
Our Reference		355926-2	355926-5
Your Reference	UNITS	0356_QC201_240702	0356_QC204_240704
Date Sampled		02/07/2024	04/07/2024
Type of sample		Soil	Soil
Date prepared	-	10/07/2024	10/07/2024
Date analysed	-	10/07/2024	10/07/2024
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.6	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	3.8	0.2
Perfluorodecanesulfonic acid	µg/kg	0.3	<0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	84	97
Surrogate $^{13}C_2$ *PFOA*	%	103	104
Extracted ISTD $^{13}C_3$ *PFBS*	%	95	84
Extracted ISTD $^{18}O_2$ *PFHxS*	%	95	89
Extracted ISTD $^{13}C_4$ *PFOS*	%	112	87

PFAS in Soils Extended			
Our Reference		355926-2	355926-5
Your Reference	UNITS	0356_QC201_240702	0356_QC204_240704
Date Sampled		02/07/2024	04/07/2024
Type of sample		Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	99	88
Extracted ISTD $^{13}C_3$ *PFPeA*	%	94	84
Extracted ISTD $^{13}C_2$ *PFHxA*	%	96	89
Extracted ISTD $^{13}C_4$ *PFHpA*	%	98	86
Extracted ISTD $^{13}C_4$ *PFOA*	%	92	83
Extracted ISTD $^{13}C_5$ *PFNA*	%	89	83
Extracted ISTD $^{13}C_2$ *PFDA*	%	78	75
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	54	52
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	59	72
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	76	87
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	80	68
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	71	75
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	61	67
Extracted ISTD $^{13}C_8$ *FOSA*	%	70	74
Extracted ISTD d_3 *N MeFOSA*	%	71	64
Extracted ISTD d_5 *N EtFOSA*	%	77	64
Extracted ISTD d_7 *N MeFOSE*	%	75	67
Extracted ISTD d_9 *N EtFOSE*	%	73	63
Extracted ISTD d_3 *N MeFOSAA*	%	76	72
Extracted ISTD d_5 *N EtFOSAA*	%	79	72
Total Positive PFHxS & PFOS	µg/kg	4.4	0.2
Total Positive PFOS & PFOA	µg/kg	3.8	0.2
Total Positive PFAS	µg/kg	4.7	0.2

Moisture			
Our Reference		355926-2	355926-5
Your Reference	UNITS	0356_QC201_240702	0356_QC204_240704
Date Sampled		02/07/2024	04/07/2024
Type of sample		Soil	Soil
Date prepared	-	09/07/2024	09/07/2024
Date analysed	-	10/07/2024	10/07/2024
Moisture	%	13	48

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	355926-3
Date prepared	-			10/07/2024	1	10/07/2024	10/07/2024		10/07/2024	10/07/2024
Date analysed	-			10/07/2024	1	10/07/2024	10/07/2024		10/07/2024	10/07/2024
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.02	0.02	0	100	100
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.01	0.01	0	103	100
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	0.22	0.22	0	105	101
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	103	100
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	0.36	0.36	0	106	101
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	107	103
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	99	100
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	98	98
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	0.02	0.02	0	98	103
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	103	102
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	0.01	0.01	0	100	98
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	94	95
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	100	99
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	87	96
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	99	104
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	103	105
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	108	108
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	91	92
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	92	94
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	83	88
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	89	120
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	101
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	105	104
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	98	103
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	97	101
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	101	102
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	109	101
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	111	98
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	104	1	100	102	2	107	103
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	102	1	95	99	4	99	100

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	355926-3
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	98	1	103	93	10	95	94
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	97	1	98	99	1	97	101
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	97	1	101	99	2	93	96
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	107	1	90	88	2	104	89
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	105	1	105	100	5	100	85
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	104	1	104	95	9	101	87
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	100	1	108	104	4	99	96
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	107	1	109	108	1	102	94
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	112	1	111	107	4	113	96
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	108	1	114	116	2	109	91
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	117	1	129	128	1	119	104
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	108	1	123	120	2	109	101
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	86	1	91	98	7	90	80
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	103	1	127	111	13	104	74
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	123	1	122	126	3	118	87
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	127	1	183	173	6	147	100
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	105	1	111	109	2	106	99
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	97	1	98	101	3	97	97
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	95	1	91	93	2	96	88
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	99	1	92	96	4	96	92

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	355926-3
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	95	1	95	96	1	95	92
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	104	1	110	111	1	104	92
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	105	1	116	106	9	97	102

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			10/07/2024	[NT]	[NT]	[NT]	[NT]	10/07/2024	[NT]
Date analysed	-			10/07/2024	[NT]	[NT]	[NT]	[NT]	10/07/2024	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	124	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	93	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	120	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	75	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	81	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	89	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	107	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
[redacted]

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]

Sample Login Details

Your reference	NSW_0356_PFASOMP_24
Envirolab Reference	355926
Date Sample Received	08/07/2024
Date Instructions Received	08/07/2024
Date Results Expected to be Reported	15/07/2024

Sample Condition

Samples received in appropriate condition for analysis	No
No. of Samples Provided	5 Water, 2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	3.0
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Sample #6: 1 x PFAS bottle out of 4 labelled as '...QC206...' on sample, whereas all other samples were labelled as '...QC205...' as per CoC. As all samples were received in bags separated by sample IDs, assumed it was a labelling error. - Confirmed by client via email.

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

[redacted]	[redacted]
Phone: [redacted]	**Phone:** [redacted]
Fax: [redacted]	**Fax:** [redacted]
Email: [redacted]	**Email:** [redacted]

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067

[redacted]

Sample ID	AECOM checks	AECOM checks	AECOM checks	AECOM checks	PFAS in Waters Extended	PFAS in Soils Extended
0356_QC200_240702	✓	✓	✓	✓	✓	
0356_QC201_240702	✓	✓	✓	✓		✓
0356_QC202_240702	✓	✓	✓	✓	✓	
0356_QC203_240704	✓	✓	✓	✓	✓	
0356_QC204_240704	✓	✓	✓	✓		✓
0356_QC205_240704	✓	✓	✓	✓	✓	
0356_QC206_240704	✓	✓	✓	✓	✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

CHAIN OF CUSTODY FORM

[Copyright and Confidential]

ENVIROLAB GROUP

[redacted]

Company:	AECOM	Client Project Name/Number/Site etc (ie report title):	NSW_0356_PFASOMP_24
Contact Person:	[redacted]	PO No. (if applicable):	60612562_8.1
Project Mgr:	[redacted]	Envirolab Quote No.:	
Sampler:	[redacted]	Date results required:	
Address:	Level 6, 420 George St, Sydney, NSW, 2000	Or choose:	☑ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day
Phone:	Mob: 0402 163 223	Note: Inform lab in advance if urgent turnaround is required - surcharges apply	
Email Results to:	[redacted]	Additional report format:	✓Esdat Equis
Email Invoice to:	[redacted]	Lab Comments:	

Sample information					Tests Required	Comments
Envirolab Sample ID (Lab use only)	Client Sample ID or Information		Date Sampled	Type of Sample	PFAS Extended Suite - Routine Level	Provide as much information about the sample as you can
1	0356_QC200_240702		2/07/2024	Water	X	
2	0356_QC201_240702		2/07/2024	Soil	X	
3	0356_QC202_240702		2/07/2024	Water	X	
4	0356_QC203_240704		4/07/2024	Water	X	
5	0356_QC204_240704		4/07/2024	Soil	X	
6	0356_QC205_240704		4/07/2024	Water	X	
7	0356_QC206_240704		4/07/2024	Water	X	

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): AECOM	Received by (Company): ELS [illegible] SYD	SC	Lab Use Only
Print Name: [redacted]	Print Name: [redacted]	Job number: ~~355926~~ 355926	Cooling: (Ice) / Ice pack / None
Date & Time: 5/07/24	Date & Time: 8/7/24 1630	Temperature: 3.0°C	Security seal: (Intact) / Broken / None
Signature: [redacted]	Signature: [redacted]	TAT Req - SAME day / 1 / 2 / 3 / 4 / (STD)	

Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME

Prepared for
Department of Defence
ABN: 68706814312

AECOM

Sampling Event Report, February 2025

PFAS OMP - Singleton Military Area

17-Apr-2025
Doc No. 20250417_OMP_SMA_EventReport_Rev0

aecom.com

Delivering a better world

Sampling Event Report, February 2025

PFAS OMP - Singleton Military Area

Client: Department of Defence

ABN: 68706814312

Prepared by

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17-Apr-2025

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AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 and ISO45001.

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
ANZG	Australian and New Zealand Governments
Defence	Department of Defence
DNSDC	Defence National Storage and Distribution Centre
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation-Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SD	Sediment
STP	Sewage Treatment Plant
SW	Surface Water
TOC	Top of Casing

List of Units

Units	Term
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mbTOC	Metres below Top of Casing
mg/kg	Milligrams per kilogram
mg/L	Milligrams per Litre
mV	Millivolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at Singleton Military Area (the 'base', Site ID 0356) in New South Wales (NSW). The location of the base and surrounding areas is shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2021) outlines the sampling requirements for on-base and off-base areas.

This Sampling Event Report has been prepared to report the results of the February 2025 biannual sampling event, specifically highlighting first-time detections and/or first-time exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA) in surface water and groundwater. Trends in concentrations of the abovementioned PFAS in sediment and wastewater effluent are also reported.

This report has been prepared in accordance with the Defence *Ongoing Monitoring Program Reporting - Guidance* issued in February 2024 (Defence, 2024).

An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period.

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2021); and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

The data will assist in the timely identification of results of interest that may trigger an action in the OMP and require further investigation and/or may represent a change in the conceptual site model (CSM) or risk to receptors.

The objective of this phase of works was to implement the scope of works for the February 2025 biannual sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2024).

2.0 Scope of Work

The scope of works was completed in general accordance with the SAQP (AECOM, 2024), as follows:

- obtain permission (where required) to conduct works at the base, off-base publicly accessible areas and at private properties
- gauging of groundwater level in monitoring wells prior to collection of samples
- collection of groundwater samples and water quality parameters at 3 of 4 scheduled monitoring wells (refer to **Table 1** below and **Figure F2** in **Appendix A** for specific locations)
- collection of surface water samples and water quality parameters at 14 of 20 scheduled surface water locations (refer to **Table 2** below and **Figure F3** in **Appendix A** for specific locations)
- collection of sediment samples at 18 of 20 scheduled sediment locations (refer to **Table 3** below and **Figure F4** in **Appendix A** for specific locations)
- collection of a wastewater effluent sample at one scheduled location (refer to **Table 3** below and **Figure F3** in **Appendix A** for specific location)
- collection of field intra-laboratory duplicate samples at a rate of 1 in 10 primary samples
- collection of field inter-laboratory duplicate samples at a rate of 1 in 10 primary samples
- collection of rinsate blank samples at a rate of 1 per day of sampling per piece of equipment which is decontaminated and re-used between sampling locations
- analysis of samples for PFAS full suite (28 analytes) at the standard limit of reporting (LOR)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Report.

The deviations from the scheduled scope of works are discussed in detail in **Section 3.0**

Table 1 Groundwater Sampling Locations

On/Off-base	Area	Sampling Locations	Total
On-base	Northern Cantonment Boundary (Sub-catchment A)	MW102, MW104*, MW109, MW110	4
Total			**4**
* Location not sampled			

Table 2 Surface Water and Wastewater Effluent Sampling Locations

On/Off-base	Area	Sampling Locations	Total
On-base	Northern Cantonment Boundary (Sub-catchment A)	SW002, SW003, SW026, SW032, SW034	5
	Northern Cantonment Boundary	SW115*	1
	Central Cantonment (Sub-catchment B)	SW028, SW555*	2
	Southern Cantonment (Sub-catchment C)	SW040, SW114*, SW116*	3
	Dochra Airfield	SW004*, SW005*	2
Off-base	North of base (Doughboy Hollow Creek Catchment)	**OTH006^, SW036, SW064, SW065, SW553, SW563**	6
	East of base (Doughboy Hollow Creek Catchment)	**SW039**	1

On/Off-base	Area	Sampling Locations	Total
	West of base (Doughboy Hollow Creek Catchment)	**SW035**	1
Total			**21**

* Location not sampled
^wastewater effluent location
Bold text denotes private property / Council location

Table 3 Sediment Sampling Locations

On/Off-base	Area	Sampling Locations	Total
On-base	Northern Cantonment (Sub-catchment A)	SD002, SD003, SD032, SD065, SD053	5
	Northern Cantonment Boundary	SD115	1
	Central Cantonment (Sub-catchment B)	SD055, SD555*	2
	Southern Cantonment (Sub-catchment C)	SD040, SD114*, SD116	3
	Dochra Airfield	SD004, SD005	2
Off-base	North of base	**SD046, SD047, SD080, SD539, SD563**	5
	East of base	**SD039**	1
	West of base	**SD052**	1
Total			**20**

* Location not sampled
Bold text denotes private property / Council location

3.0 Deviations from the SAQP

Deviations from the SAQP are provided in **Table 4** below.

Table 4 Deviations from SAQP

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples, and associated field parameters, were not collected from 1 of the 4 scheduled groundwater sampling locations.	Groundwater monitoring well MW104 was observed to be dry and/or potentially blocked and therefore could not be sampled during this sampling event.	The lack of sampling data for MW104 is not considered to have a significant impact on the dataset, or present a significant data gap, as MW110 located along the Northern Cantonment Boundary targeting the same shallow aquifer was able to be sampled. Additionally, MW104 is planned to be removed from the OMP given it has not been sampled historically.
Samples, and associated field parameters and/or observation, were not collected from 6 of the 20 scheduled surface water locations and from 2 of the 20 scheduled sediment locations.	Surface water locations SW004, SW005, SW115, and SW116 were observed to be dry and therefore could not be sampled during this sampling event.	The lack of sampling data at these locations is not considered to have a significant impact on the dataset, or present a significant data gap, given that it confirms that the source>receptor> pathway linkages for PFAS in surface water were incomplete at the time of sampling at specific locations. AECOM will attempt to sample these locations again during the next sampling event in July 2025.
	Co-located surface water and sediment locations SW114/SD114 were considered to be no longer representative of site conditions given the recent works on the base boundary, involving the installation of causeways which have led to a change in the landform. This location was not sampled.	The lack of sampling data at SW114/SD114 is not considered to have a significant impact on the dataset, or present a potential data gap given the location is upstream of key source areas and SW003 captures the flows in Sub-catchment A. Based on the recent changes in the landform and that historically the location has often been dry, AECOM recommends that this co-located surface water and sediment sampling location (SW114/SD114) be removed from the OMP scope.
	Co-located surface water and sediment locations SW555/SD555 were within a fenced area for regeneration works and therefore not accessed for sampling.	The lack of sampling data at SW555/SD555 presents a potential data gap in monitoring the extent of PFAS in surface water migrating off-base to the east of the base in sub-catchment B, as there are no other surface water and sediment locations targeting downstream of the unnamed tributary of Doughboy Hollow Creek in sub-catchment B. It is noted that PFAS concentrations at SW555 have historically been either below LOR or below adopted human

SAQP Deviation	Comment / Justification	Impact on Dataset
		health screening criteria (recreational water). The PFAS concentrations at SD555 have historically been consistent with concentration ranges reported at other sediment locations along the eastern boundary of the base. AECOM will attempt to access and sample these locations again during the next sampling event in July 2025 or identify alternative locations if deemed to be inaccessible in the long-term.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the February 2025 Biannual sampling event was in accordance with the SAQP (AECOM, 2024) and is summarised in **Table 5** below.

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater was measured in each accessible monitoring well immediately prior to collection of groundwater samples. Measurements of depth to groundwater were undertaken using a decontaminated interface probe, which was tested by the supplier to ensure the instrument was fully operational prior to despatch and use. The equipment supplier records are provided in **Appendix C**.
Field parameters	Temperature, electrical conductivity, dissolved oxygen, oxidation-reduction potential (ORP), pH and observations of water quality were recorded for groundwater and surface water samples. Water quality parameters were collected ex-situ using a calibrated water quality meter. The equipment supplier service and calibration records, and field calibration records are provided in in **Appendix C**.
Sampling methodology	**Groundwater Monitoring Wells** Groundwater samples were collected from monitoring wells using a no-purge methodology with HydraSleeves™ which were installed within the screened interval of the wells and avoiding placing the base of the HydraSleeves™ at the base of the monitoring well, where a build-up of sediment may be present. The installation depth of the HydraSleeves™ was recorded (as HydraSleeve™ collar depth in metres below top of casing (mbTOC)). HydraSleeves™, with bottom weights only, were installed / deployed in monitoring wells for a minimum of 4 hours prior to sampling, to allow re-stabilisation of the well following disturbance. For this event, all the HydraSleeves™ were installed on the first day of the sampling event (on 17 February 2025) and sampled the following day (on 18 February 2025). **Surface Water** Surface water samples were collected from either mid-way through the water column or approximately 0.5 m below the surface (if possible) using a 'grab' sample method, without disturbing the bottom of the surface water body and without capturing any surface film, to minimise collection of sediment, or floating materials in the samples. At each location, new laboratory supplied containers were lowered into the water with the caps immediately applied once the containers were full. Where sampling points were not able to be accessed safely, surface water samples were collected with use of a sampling pole. Description of each sampling location were recorded (including physical setting, flow observations, presence of sheen or foam, etc). **Sediment** Sediment samples were collected from a depth representative of potentially deposited sediments and collected from within the water body, using a hand trowel to a maximum depth of 0.3 m below the sediment surface.

Item	Details
	A new laboratory supplied container was used at each location for collection of samples, and any reusable sampling equipment utilised was de-contaminated between locations. Description of each sampling location and the sample material was recorded. **Wastewater Effluent** The wastewater effluent sample (OTH006) was collected from the in-flow effluent wastewater pipe beneath the Sewage Treatment Plant (STP) pump house using a dedicated disposable bailer lowered through an access hatch in the base of the pump house. The sample was decanted directly into a new, laboratory supplied container with the cap immediately applied once the container was full.
QA/QC Samples	A Quality Assurance and Quality Control (QA/QC) program was implemented for the sampling and analysis program in order to obtain representative data and assess the reliability of the data obtained. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The RPD should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the laboratory LOR. The QA/QC samples included: • 4 x intra-laboratory duplicates (1 for groundwater, 1 for surface water and 2 for sediment) which met the target frequency. • 4 x inter-laboratory duplicates(1 for groundwater, 1 for surface water and 2 for sediment) which met the target frequency. • 3 x rinsate blanks, which met the target frequency. The data validation assessment is presented in **Appendix D**.
Sample analysis	Samples were submitted to the following laboratories for PFAS full suite at the standard LOR: • ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. • Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.3** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPA Australia and New Zealand (HEPA) 2025. *PFAS National Environmental Management Plan 3.0*. March 2025.
- Department of Health (DoH), 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- Food Standards Australia New Zealand (FSANZ), 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 6** below. At the time of preparing this report, the PFAS NEMP (HEPA, 2025) did not provide any screening criteria for PFAS in sediments.

It is noted that the previous version of the PFAS NEMP, version 2.0 (HEPA, 2020), was referenced in the SAQP (AECOM, 2024) applicable to the February 2025 biannual sampling event. The recently released version 3.0 of the PFAS NEMP (HEPA, 2025) has been applied in this sampling event report, noting that there are no changes to the adopted guideline values listed in **Table 6** below.

Table 6 Summary of Adopted Screening Criteria: Water

Media	Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors				
Water – Groundwater	Drinking water	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP (HEPA, 2025) are from DoH (2017), which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the Tolerable Daily Intake for PFOS and PFOA from FSANZ (2017) and the methodology described in Chapter 6.3.3 of the NHMRC's Australian Drinking Water Guidelines (ADWG) (2022) to determine drinking water values. For PFHxS, DoH (2017) noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*.' *All groundwater results were compared to these criteria.*
		PFOA	0.56 µg/L	

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational water	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC's water quality advisory recommended an alternative methodology to calculate recreational guideline values. Instead of basing it on an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in the PFAS NEMP (HEPA, 2025). *All surface water results were compared to these criteria.*
		PFOA	10 µg/L	
Ecological Receptors				
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2025) which endorsed the Australian and New Zealand guidelines for fresh and marine water quality (ANZG, 2023). The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results (inclusive of wastewater results) were compared to these criteria.*
		PFOA	19 µg/L	

4.3 Triggers Levels

The following trigger levels as presented in the OMP (Defence, 2021) have also been assessed:

- First-time detection of PFAS in groundwater / surface water
- First-time exceedance of the drinking water guideline in groundwater
- First-time exceedance of the recreational water guideline in surface water

Note that PFAS trends will be reviewed and discussed in the next OMR, together with a review of the CSM and risk profile.

4.4 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024). Data validation assessment is provided in **Appendix D**.

Data validation procedures employed in the assessment of the field and laboratory's Quality Assurance and Quality Control data, completed as per Section 3.2 of the SAQP, indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable (i.e. >95% of the data was suitable for use and DQIs passed acceptance criteria) for the purpose of this sampling event report.

All data collected during the monitoring period had been reviewed and uploaded to the Defence ESdat database in accordance with the Defence Contamination Management Manual requirements.

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the February 2025 biannual sampling event completed between 17 and 19 February 2025 are summarised in **Table 7** below.

Table 7 General Observations

Items	Observations
Weather Conditions	The weather was observed to be variable but dry, with maximum daily temperatures between 10.9˚C (18 February 2025) and 29.4 ˚C (19 February 2025) and no rainfall recorded at Singleton (Singleton Defence AWS, Station 061430) (Bureau of Meteorology, 2025).
Estate Management Works, Training Activities and/or Construction Works.	Ongoing ecological protection and revegetation works being carried out along the eastern boundary of the base prevented access to co-located surface water and sediment locations SW555 and SD555 (which were within the fenced area of the exclusion zone). Recent resurfacing and ground works along parts of the eastern base boundary have resulted in changes in ground elevations and potential changes to surface water flows from the base at the co-located surface water and sediment locations SW114 and SD114. As a result, locations SW114/SD114 were deemed no longer representative for sampling purposes. No other estate management works, training activities or construction works with potential to impact the program were observed during the sampling event. AECOM has been notified of extensive future construction works off-base, including new road alignment and construction of a new bridge, which may impact sampling locations in the vicinity of the Dochra airfield during the next sampling event in July 2025.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the February 2025 biannual sampling event are summarised in **Table 8** below.

Table 8 Field Observations and Measurements

Item	Description
Monitoring Well Network Condition	The following was observed on the condition of the well network: • MW104: the well may have a blockage at 12.83 mbTOC, given the depth of the well at installation was 13.80 mbTOC, which could be due to build-up of sediment or roots in the well. The well was dry and not sampled. • MW109: the well may have a blockage at 29.99 mbTOC, given the depth of the well at installation was 30.65 mbTOC which could be due to build-up of sediment or roots in the well. • Remaining wells accessed were in good condition.
Water Observations	The following observations were recorded: • A biosheen at surface water location SW034. • Sulphurous odours at two surface water locations (SW039 and SW563).

Item	Description
	• Organic odours at one ground water location (MW109) and at five surface water locations (SW003, SW035, SW036, SW064 and SW553). • Effluent odour at the wastewater effluent location (OTH006).
Depth to Groundwater and Flow Direction	Depth to groundwater from the sampling visit ranged from 12.832 (MW109) and 13.302 (MW110) mbTOC. Groundwater elevation ranged between 32.098 (MW110) and 33.899 (MW102) metres Australian Height Datum (mAHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. Given the limited groundwater gauging data, no groundwater elevation contours where developed; however, the groundwater flow directions for the shallow and deep wells are shown on **Figure F5** and **Figure F6** in **Appendix A**, respectively, based on the gauging data available and previous inferred flow directions.
Water Quality Parameters	Groundwater and surface water quality parameters were measured during the collection of water samples. The readings are presented in **Table T2** and **Table T3** in **Appendix B** and are summarised below: **Groundwater Quality Parameters** • Dissolved oxygen ranged from 0.65 mg/L (MW109) to 2.04 mg/L (MW102) indicating poorly to moderately oxygenated conditions. • Electrical conductivity ranged from 12,360 µS/cm (MW109) to 21,054 µS/cm (MW102) indicating brackish to saline conditions. • pH ranged from 6.63 (MW102) to 7.72 (MW109) indicating neutral conditions. • ORP (corrected) ranged from -59.7 mV (MW109) to 237.8 mV (MW102) indicating reducing conditions. • Temperature ranged from 21.2˚C (MW110) to 21.5˚C (MW102). **Surface Water Quality Parameters** • Dissolved oxygen ranged from 0.63 mg/L (SW002) to 5.71 mg/L (SW563) indicating poorly to well oxygenated conditions. • Electrical conductivity ranged from 165.1 µS/cm (SW002) to 1,841 µS/cm (SW035) indicating fresh to brackish conditions. • pH ranged from 5.65 (SW002) to 9.21 (SW563) indicating moderately acidic to alkaline conditions. • ORP (corrected) ranged from 173.7 mV (SW039) to 289.3 mV (SW002) indicating mildly reducing conditions. • Temperature ranged from 22.4˚C (SW002) to 32.0˚C (SW064).
Sediment Observations	Sediment sampled and logged comprised silt, silty sand, and silty/sandy clay materials with inclusions of organic materials (mostly rootlets). No anthropogenic inclusions or staining were observed. An organic odour was noted at one sediment location (SD046). Refer to in **Table T4** in **Appendix B** for a summary of sediment classifications and observations.

5.3 Summary of Analytical Results

5.3.1 Groundwater Analytical Results

The groundwater PFAS analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, three primary groundwater samples were analysed for PFAS compounds during this sampling event, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in one primary sample
- PFOS+PFHxS and/or PFOA exceeding the adopted human health drinking water screening criteria in one primary sample
- PFOS and/or PFOA exceeding the adopted ecological screening criteria in one primary sample.

There were no first-time detections or first-time exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the groundwater samples analysed.

5.3.2 Surface Water and Wastewater Analytical Results

The surface water and wastewater PFAS analytical results from this sampling event are presented in **Table T6** in **Appendix B**. In summary, 14 primary surface water samples and one wastewater effluent sample were analysed for PFAS compounds during this sampling event, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 12 primary surface water samples and one wastewater effluent sample
- PFOS+PFHxS and/or PFOA not exceeding the adopted human health recreational water screening criteria in the primary surface water samples and the wastewater effluent sample
- PFOS and/or PFOA exceeding the adopted ecological screening criteria in 12 primary surface water samples and one wastewater effluent sample.

There were no first-time detections or first-time exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the surface water and wastewater effluent samples analysed.

5.3.3 Sediment Analytical Results

The sediment PFAS analytical results from this sampling event are presented in **Table T7** in **Appendix B**. In summary, 18 primary sediment samples were analysed for PFAS compounds during this sampling event, with concentrations of PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 17 primary samples.

There were no first-time detections for PFOS+PFHxS, PFOS and/or PFOA in the sediment samples analysed.

5.4 Historical Sampling Data

The groundwater, surface water and wastewater, and sediment PFAS analytical results from this sampling event as well as historical data for all locations currently in the OMP scope, as per the SAQP (AECOM, 2024), are presented in **Table T8**, **Table T9** and **Table T10** (respectively) in **Appendix B.**

5.5 Trigger Levels Assessment

The assessment of analytical results from this sampling event against the OMP trigger levels and associated responses is presented in **Table 9**. Note that PFAS trends will be interpreted in the next OMR.

Table 9 Trigger Levels Assessment

Triggers	Triggers in February 2025 Sampling Event Data	Responses
First-time detection of PFAS (for regulated PFAS including PFOS+PFHxS, PFOS and/or PFOA), in groundwater and surface water	• Nil	• Nil
First-time exceedance of the drinking water guideline (HEPA, 2025*) in groundwater: PFOS+PFHxS: 0.7 µg/L PFOA: 0.56 µg/L	• Nil	• Nil
First-time exceedance of the recreational water guideline (HEPA, 2025*) in surface water: PFOS+PFHxS: 2 µg/L PFOA: 10 µg/L	• Nil	• Nil

Note: * PFAS NEMP 2.0 (HEPA, 2020) is referenced in the current OMP (Defence, 2021). The newly released PFAS NEMP 3.0 (HEPA, 2025) has been applied in this table, noting no changes to the adopted guideline values.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The February 2025 biannual sampling event was completed between 17 February and 19 February 2025. The findings and the recommended actions are summarised in **Table 10** below.

Table 10 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following were accessed and able to be sampled: • 3 groundwater locations • 14 surface water locations • 1 wastewater effluent location • 18 sediment locations	Nil.
Location unable to be located, inaccessible or dry	The following locations were not able to be sampled during this sampling event: • Groundwater location MW104 was dry, potentially blocked • Surface water locations SW004, SW005, SW115, and SW116 were dry • Co-located surface water and sediment locations SW114/SD114 were considered no longer representative of site conditions given the recent works involving the installation of causeways which have led to a change in the landform • Co-located surface water and sediment locations SW555/SD555 were unable to be accessed (now within a fenced off area for environmental regeneration works).	It is noted that MW104 is planned to be removed from the OMP given it has not been sampled historically. AECOM will attempt to sample locations SW004, SW005, SW115 and SW116 during the next scheduled sampling event in July 2025. AECOM recommends that co-located surface water and sediment sampling location (SW114/SD114) be removed from the OMP scope. AECOM will attempt to access and sample locations SW555 and SD555 during the next scheduled sampling event in July 2025 or identify alternative locations if deemed to be inaccessible in the long-term.
Monitoring well network condition	The following was observed on the condition of the well network: • MW104 and MW109 may be blocked (possibly due to build-up of sediment or roots) in the wells. • Remaining wells accessed were in good conditions.	AECOM will attempt to clear MW109 during the next scheduled sampling event in July 2025.
Analytical Results	Three groundwater primary samples, 14 surface water primary samples, one wastewater effluent sample and 18 sediment primary samples were analysed.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

Item	Comment	Recommended Action
First-time detections of PFOS+PFHxS, PFOS and/or PFOA in groundwater and surface water	There were no first-time detections of PFOS+PFHxS, PFOS and/or PFOA reported in the groundwater and surface water locations sampled.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
First-time exceedance of the drinking water guideline in groundwater	There were no first-time exceedances of the adopted human health screening criteria (drinking water) in the groundwater locations sampled.	
First-time exceedance of the recreational water guideline in surface water	There were no first-time exceedances of the adopted human health screening criteria (recreational water) in the surface water locations sampled.	

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for July 2025.

6.3 Upcoming Ongoing Monitoring Report

The data from this February 2025 biannual sampling event will be included in a future OMR, which would capture data from July 2024 to June 2025, and scheduled to be delivered in Q2 of 2025.

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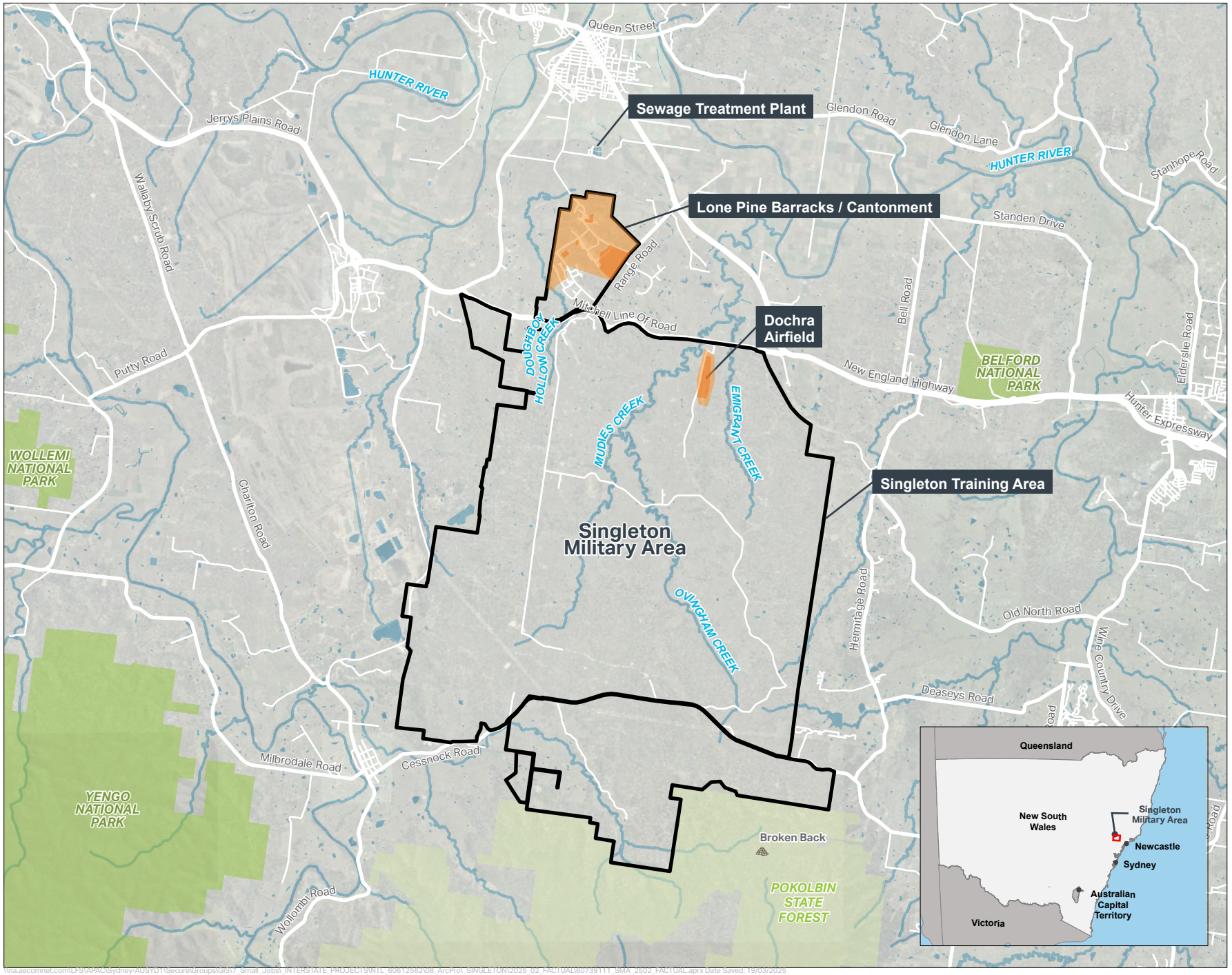
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Appendix A

Figures



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N

0 1.5 3 km

Legend

- Site Boundary
- PFAS Source Areas
- On-site Monitoring Area
- State Forest
- NPWS Reserve
- Waterbody
- Watercourse

FIGURE F1:
SITE LOCATION

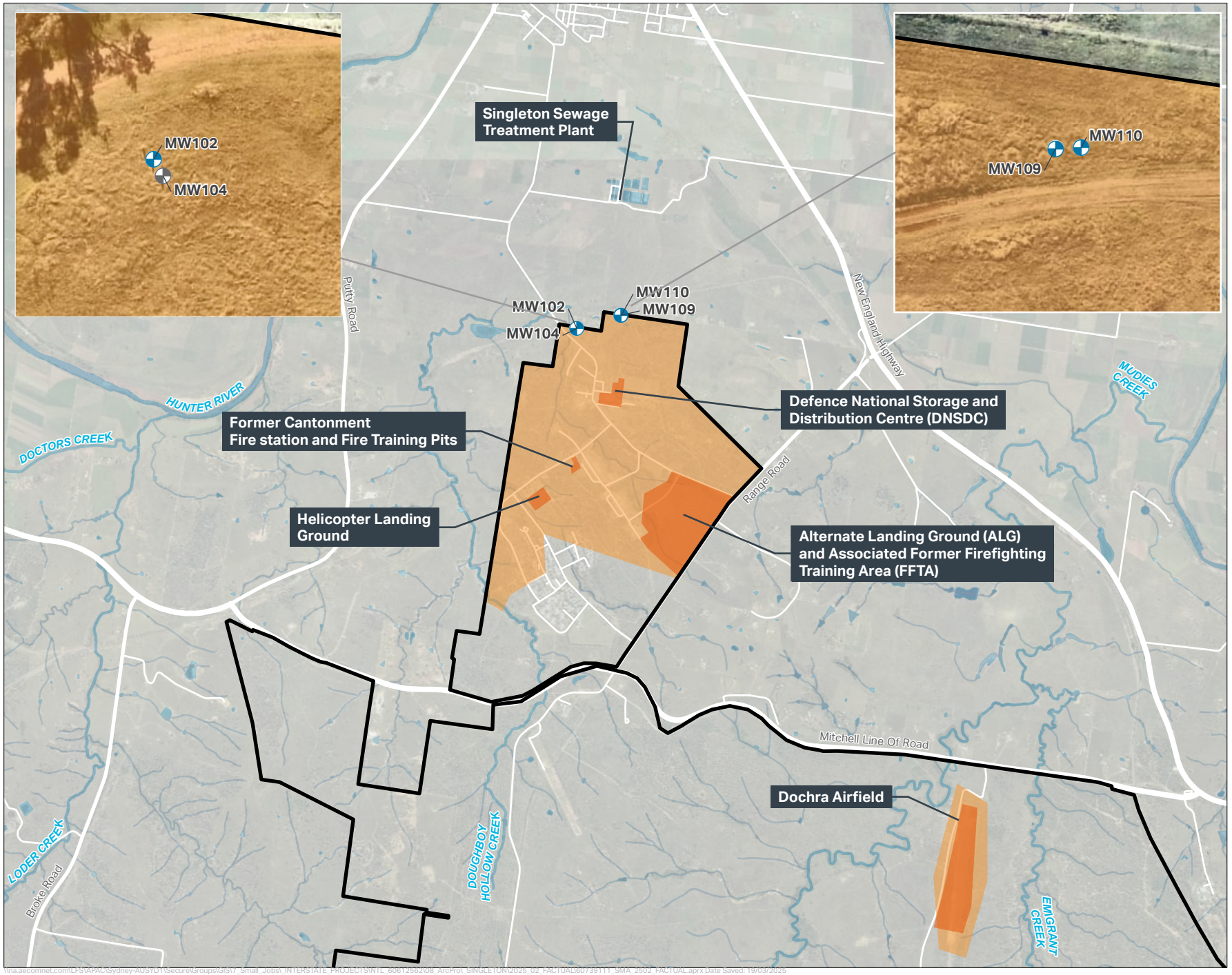
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PFAS OMP
REPORT NAME:
Sampling Event Report, February 2025
PFAS OMP - Singleton Military Area
CLIENT NAME:
Department of Defence
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0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage line
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

FIGURE F2:
GROUNDWATER SAMPLE LOCATIONS

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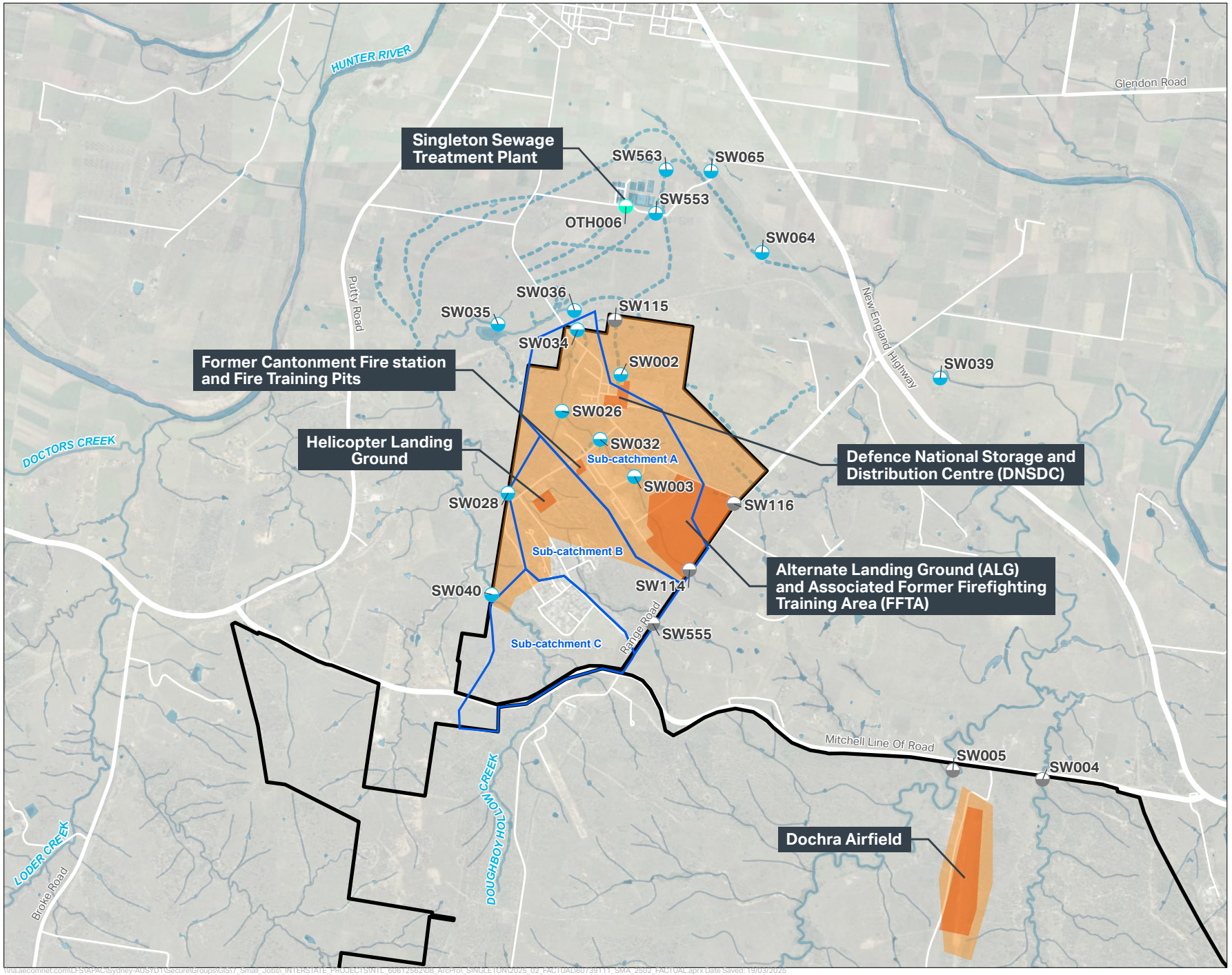
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0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Catchment Boundaries
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Surface Water Location (sampled)
- Surface Water Location (not sampled)
- Waste Water Location (sampled)

FIGURE F3:
SURFACE WATER SAMPLE LOCATIONS

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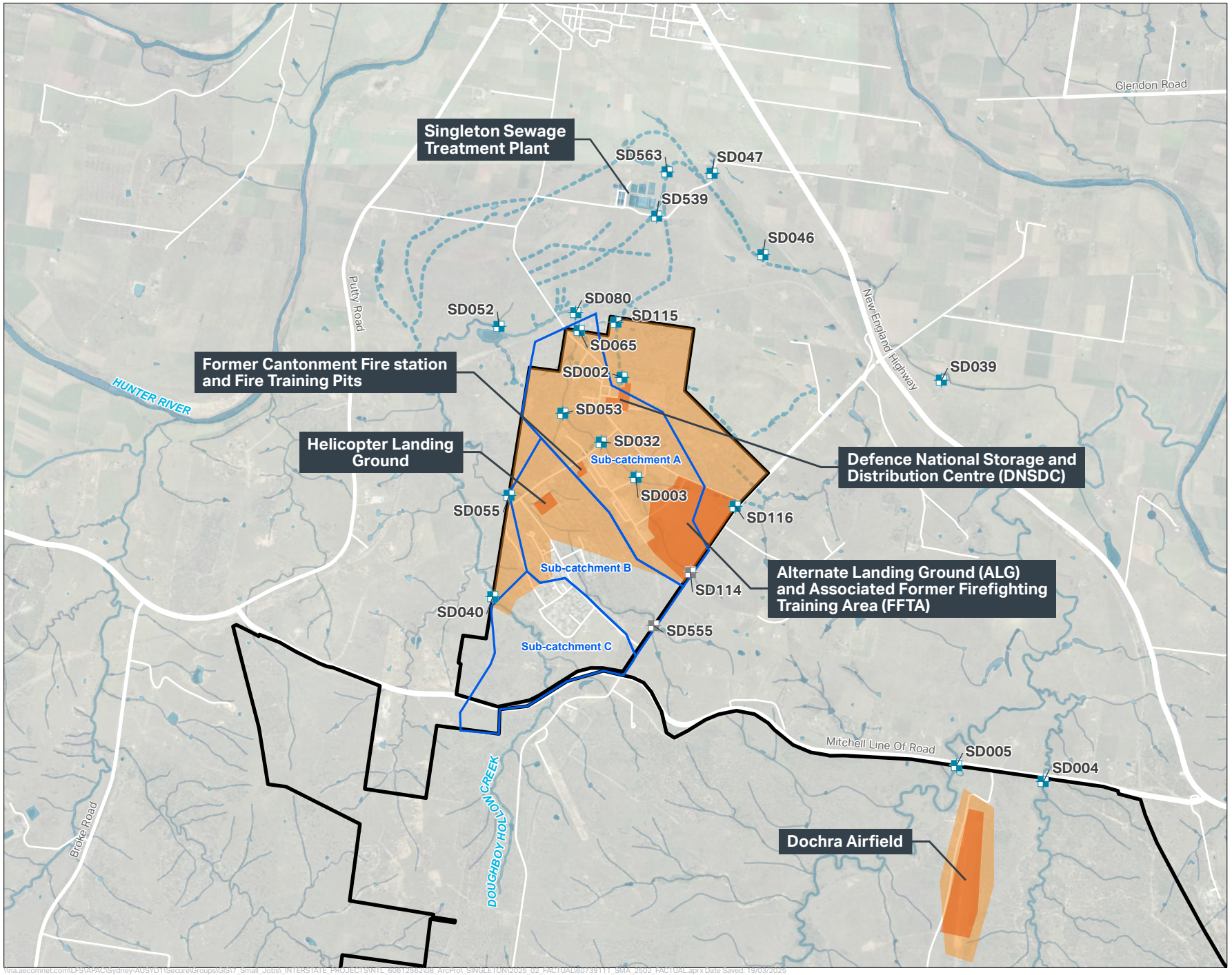
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0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- Watercourse
- Drainage line
- Undefined Drainage Lines
- Catchment Boundaries
- Sediment Location (sampled)
- Sediment Location (not sampled)

FIGURE F4:
SEDIMENT SAMPLE LOCATIONS

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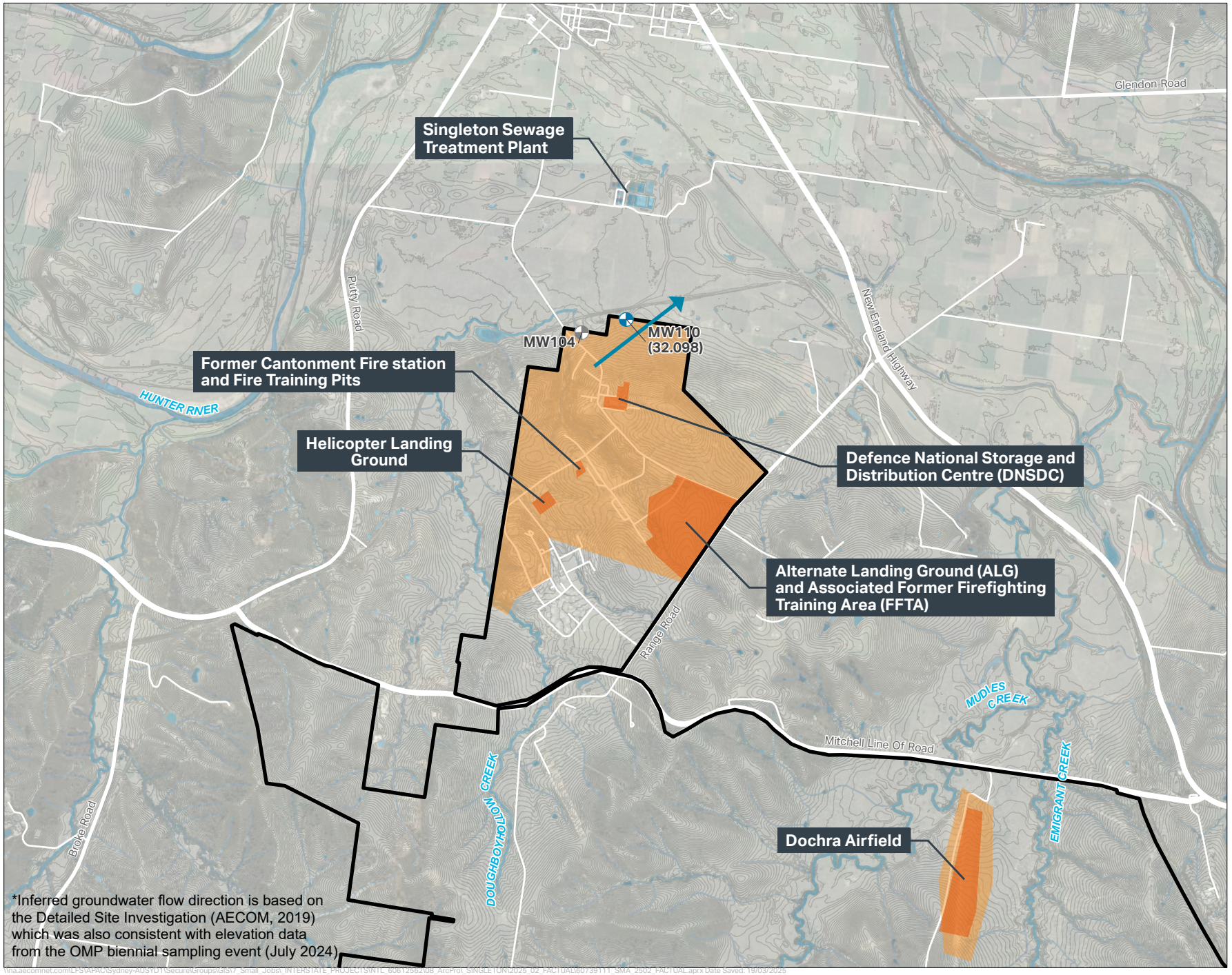
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0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- 1 m AHD Topographical Contour
- Watercourse
- Drainage line
- Inferred Groundwater Flow
- Groundwater Location (gauged)
- Groundwater Location (not gauged)

FIGURE F5:
GROUNDWATER ELEVATION PLAN - SHALLOW

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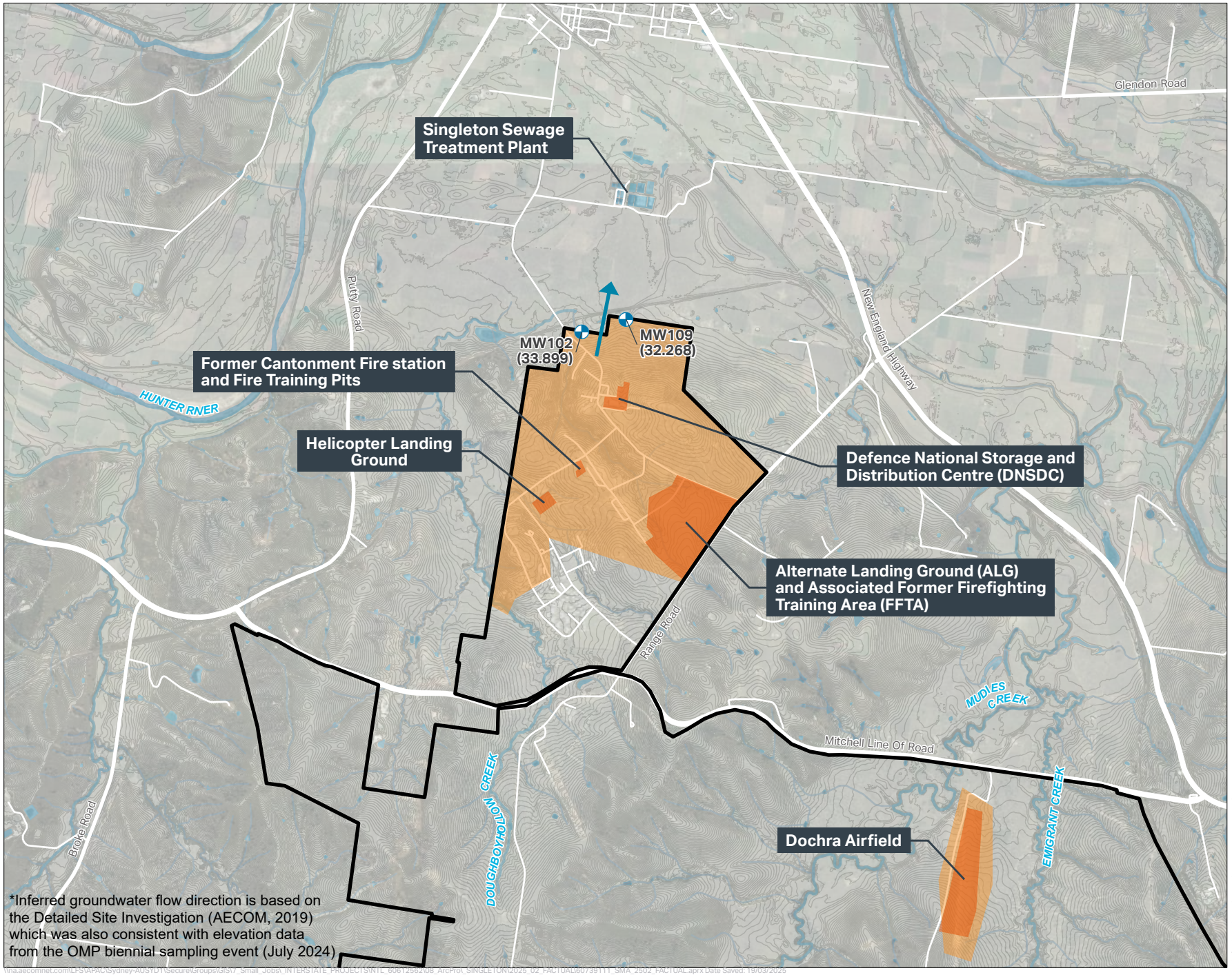
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N

0 0.5 1 km

Legend

- Site Boundary
- On-site Monitoring Area
- PFAS Source Areas
- 1 m AHD Topographical Contour
- Watercourse
- Drainage line
- Inferred Groundwater Flow
- Groundwater Location (gauged)

FIGURE F6:
GROUNDWATER ELEVATION PLAN - DEEP

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Appendix B

Tables

Table T1 - Groundwater Gauging and Observations

Location Code	Top of Casing (mAHD)	Top Screen (mbgl)	Bottom Screen (mblg)	Stick up (m)	HydraSleeve Collar Depth (mbTOC)	Visit Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit Comments	Gauging Comments
MW102	46.82	12.5	15.5	0.95	15.0	17/02/2025 10:29	12.924	33.896	16.67	HydraSleeve install visit	Good condition. HydraSleeve installed.
MW102	46.82	12.5	15.5	0.95	15.0	18/02/2025 9:24	12.921	33.899	16.67	Sampling visit	Good condition.
MW104	46.72	10	13	0.8	n/a	17/02/2025 10:46	n/a	n/a	12.83	HydraSleeve install visit	Good condition. Potential blockage at 12.83 mbTOC. Well dry. No HydraSleeve installed.
MW109	45.1	24.5	30	0.65	29.0	17/02/2025 10:52	12.827	32.273	29.98	HydraSleeve install visit	Good condition. Potential blockage at 29.98 mbTOC. HydraSleeve installed.
MW109	45.1	24.5	30	0.65	29.0	18/02/2025 9:57	12.832	32.268	29.99	Sampling visit	Good condition. Potential blockage at 29.98 mbTOC.
MW110	45.4	11.5	14	0.93	13.5	17/02/2025 11:03	13.303	32.097	14.72	HydraSleeve install visit	Good condition. HydraSleeve installed.
MW110	45.4	11.5	14	0.93	13.5	18/02/2025 10:12	13.302	32.098	14.72	Sampling visit	Good condition.

Notes

mAHD	meters Australian Height Datum
mbgl	meters below ground level
mbTOC	meters below Top of Casing
n/a	Not applicable

Table T2 - Groundwater Quality Parameters and Observations

					Water Quality Parameters					
					Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
					mg/L	°C	µS/cm	pH Units	mV	mV
Location Code	Date	Location Comments	Sample Comments	Sampling Method						
MW102	18/02/2025		Clear, no turbidity, no odour, no sheen	HydraSleeve	2.04	21.5	21,054.0	6.63	32.0	237.8
MW104	17/02/2025	Dry - HydraSleeve not installed	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW109	18/02/2025		Clear, no turbidity, slight organic odour, no sheen	HydraSleeve	0.65	21.3	12,360.0	7.72	-265.5	-59.7
MW110	18/02/2025		Light yellow, no turbidity, no odour, no sheen	HydraSleeve	1.96	21.2	19,926.0	7.01	-126.8	79.0

Notes

°C	degrees Celsius
µS/cm	microSiemens per centimetre
mg/L	milligrams per Litre
mV	milliVolts

Corrected field Redox measurement Eh = Er + 205.8

n/a not applicable

Table T3 - Surface Water and Wastewater Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
						mg/L	°C	µS/cm	pH Units	mV	mV
Location Code	Date	Location Comments	Sample Depth From (m)	Sample Depth To (m)	Sample Comments						
OTH006	19 Feb 2025	Effluent wastewater pit. Waterbody 1 m wide, 0.25 m deep. Water flow observed.	0.1	0.2	Clear with suspended solids, low turbidity, effluent odour, no sheen.	n/a	n/a	n/a	n/a	n/a	n/a
SW002	17 Feb 2025	Creek. 10m wide, 0.5m deep. Dense vegetation on surface of water. No flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen.	0.63	22.4	165.1	5.65	83.5	289.3
SW003	18 Feb 2025	Creek. 1m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Brown, medium turbidity, slight organic odour, no sheen.	2.06	23.9	217.4	6.14	33.1	238.9
SW004	19 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW005	19 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW026	17 Feb 2025	Creek. 4m wide, 0.7m deep. No flow observed.	0.3	0.4	Brown, medium turbidity, no odour, no sheen	3.60	23.6	316.2	6.16	82.8	288.6
SW028	17 Feb 2025	Creek. 2m wide, 1m deep. No flow observed.	0.4	0.5	Light yellow, low turbidity, no odour, no sheen.	2.00	26.1	190.8	6.45	77.1	282.9
SW032	17 Feb 2025	Creek. 5m wide, 0.5m deep. No flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen	1.61	28.1	246.3	6.21	76.9	282.7
SW034	17 Feb 2025	Creek. 2m wide, 0.5m deep. Biosheen observed on the surface of the water. No flow observed.	0.2	0.3	Light yellow, low turbidity, no odour, no sheen.	1.90	28.0	210.4	6.24	65.8	271.6
SW035	18 Feb 2025	Agricultural dam. 30m wide, 0.5m deep. No flow observed.	0.2	0.3	Light brown, medium turbidity, organic odour, no sheen.	5.48	28.8	1,841.0	6.79	-3.8	202.0
SW036	18 Feb 2025	Agricultural dam. 20m wide, 0.5m deep. No flow observed.	0.2	0.3	Light brown, medium turbidity, organic odour, no sheen.	3.70	29.4	227.7	6.77	-1.2	204.6
SW039	18 Feb 2025	Dam. 10m wide, 1m deep. Vegetation observed on the surface of the water. No flow observed.	0.3	0.4	Brown, high turbidity, sulfurous odour, no sheen.	1.77	27.2	1,078.0	6.86	-32.1	173.7
SW040	17 Feb 2025	Creek. 1m wide, 0.5m deep. No flow observed.	0.2	0.3	Light yellow, low turbidity, no odour, no sheen.	3.00	27.9	1,327.0	6.74	52.8	258.6
SW064	19 Feb 2025	Creek. 25m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Brown, medium turbidity, organic odour, no sheen.	5.39	32.0	705.0	7.54	-8.1	197.7
SW065	19 Feb 2025	Creek. 3m wide, 0.5m deep. Vegetation on the surface of the water. Low flow observed.	0.2	0.3	Brown, medium turbidity, no odour, no sheen.	3.73	27.9	602.0	7.85	4.9	210.7
SW114	18 Feb 2025	Creek. Location not sampled as no longer representative.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW115	17 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW116	18 Feb 2025	Creek. Location dry - not sampled.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW553	19 Feb 2025	Creek. 8m wide, 0.5m deep. Vegetation on the surface of the water. No flow observed.	0.2	0.3	Yellow, medium turbidity, organic odour, no sheen.	3.79	29.8	421.8	7.16	4.3	210.1
SW555	18 Feb 2025	Creek. Unable to access due to area being fenced off. Restricted access signs posted on the fence. Not sampled.	n/a	n/a	n/a - not sampled	n/a	n/a	n/a	n/a	n/a	n/a
SW563	19 Feb 2025	Dam. 10m wide, 0.5m deep. No flow observed.	0.2	0.3	Grey, medium turbidity, sulfurous odour, no sheen.	5.71	29.7	627.0	9.21	-14.5	191.3

Notes
°C degrees Celsius
µS/cm microSiemens per centimetre
mg/L milligrams per Litre
mV milliVolts
Corrected field Redox measurement Eh = Er + 205.8
n/a not applicable

Table T4 - Sediment Observations

Location Code	Date	Sample Depth From (m)	Sample Depth To (m)	Location Comments	Sample Comments
SD002	17/02/2025	0.2	0.3	Creek bed.	Silty SAND: grey, low plasticity, fine-medium grained, with organic inclusions (fine rootlets), damp. No odour, no staining.
SD003	18/02/2025	0.2	0.3	Creek bed.	CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
SD004	19/02/2025	0.2	0.3	Creek bed.	CLAY: brown with red streaking, high plasticity, fine grained, saturated. No odour, no staining.
SD005	19/02/2025	0.2	0.3	Creek bed.	SILT: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
SD032	17/02/2025	0.2	0.3	Creek bed.	Sandy SILT: brown, medium plasticity, medium, with organic inclusions (rootlets).No odour, no staining.
SD039	18/02/2025	0.2	0.3	Dam bed.	CLAY: brown grey, high plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
SD040	17/02/2025	0.2	0.3	Creek bed	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (woody roots), wet. No odour, no staining.
SD046	19/02/2025	0.2	0.3	Creek bed	Sandy SILT: brown, medium plasticity, fine grained, damp. Organic odour, no staining.
SD047	19/02/2025	0.2	0.3	Creek edge.	SILT: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
SD052	18/02/2025	0.2	0.3	Dam bed	SILT: grey, low plasticity, fine grained, dry. No odour, no staining.
SD053	17/02/2025	0.2	0.3	Creek bed.	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
SD055	17/02/2025	0.2	0.3	Creek bed.	Silty CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), damp. No odour, no staining.
SD065	17/02/2025	0.2	0.3	Creek bed.	Silty SAND: brown, low plasticity, fine-medium grained, dry. No odour, no staining.
SD080	18/02/2025	0.2	0.3	Dam bed.	Silty SAND: brown grey, medium plasticity, medium grained, with 2-5mm gravel, dry. No odour, no staining.
SD114	18/02/2025	n/a	n/a	Location not sampled as no longer representative.	n/a - not sampled
SD115	17/02/2025	0.2	0.3	Creek bed.	SAND: brown, low, medium-coarse grain with gravel 2-5mm, damp. No odour, no staining.
SD116	18/02/2025	0.2	0.3	Creek bed.	CLAY: brown, high plasticity, fine grained, wet. No odour, no staining.
SD539	19/02/2025	0.2	0.3	Creek bed.	CLAY: grey, high plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.
SD555	18/02/2025	n/a	n/a	Unable to access due to area being fenced off. Restricted access signs posted on the fence.	n/a - not sampled
SD563	19/02/2025	0.2	0.3	Dam bed.	Sandy CLAY: brown, medium plasticity, fine grained, with organic inclusions (rootlets), wet. No odour, no staining.

Notes
n/a = not applicable

Table T5 - Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane Sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water						0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
MW102	18 Feb 2025	0356_MW102_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Feb 2025	0356_QC102_250218	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Feb 2025	0356_QC202_250218	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.2	<0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.05	<0.05	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW109	18 Feb 2025	0356_MW109_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.11*	0.16	0.27	0.33	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	18 Feb 2025	0356_MW110_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate
sample µg/L = micrograms per litre

Table T6 - Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						10			2																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
OTH006	19 Feb 2025	0356_OTH006_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_SW002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.03	*0.68*	0.62	1.3	1.48	0.02	0.03	0.04	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_QC101_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	0.02	*0.8*	0.55	1.35	1.52	0.02	0.02	0.05	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_QC201_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	0.03	*0.66*	0.54	1.2	1.4	0.02	0.02	0.03	<0.02	<0.02	<0.02	0.06	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW003	18 Feb 2025	0356_SW003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.03*	0.04	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Feb 2025	0356_SW026_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.28*	0.18	0.46	0.46	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	17 Feb 2025	0356_SW028_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	17 Feb 2025	0356_SW032_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.01	*0.54*	0.26	0.8	0.83	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Feb 2025	0356_SW034_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.39*	0.2	0.59	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Feb 2025	0356_SW035_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Feb 2025	0356_SW036_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	*0.42*	0.21	0.63	0.65	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	18 Feb 2025	0356_SW039_250218	Normal	ES2504728	NSW_0356_PFASOMP_25	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	17 Feb 2025	0356_SW040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	19 Feb 2025	0356_SW064_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.04*	<0.01	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Feb 2025	0356_SW065_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Feb 2025	0356_SW553_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	19 Feb 2025	0356_SW563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate
sample µg/L = micrograms per litre

Table T7 - Sediment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																														
SD002	17 Feb 2025	0356_SD002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0045	0.0006	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	18 Feb 2025	0356_SD003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0041	0.0004	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Feb 2025	0356_SD004_250219	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Feb 2025	0356_QC103_250219	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Feb 2025	0356_QC203_250219	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD005	19 Feb 2025	0356_SD005_250219	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD032	17 Feb 2025	0356_SD032_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0266	0.0013	0.0279	0.0288	<0.0002	<0.0002	0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	18 Feb 2025	0356_SD039_250218	Normal	ES2504728	NSW_0356_PFASOMP_25	<0.0002	0.0041	<0.0002	0.0041	0.0041	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	17 Feb 2025	0356_SD040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	19 Feb 2025	0356_SD046_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0024	<0.0002	0.0024	0.0024	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	19 Feb 2025	0356_SD047_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Feb 2025	0356_SD052_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Feb 2025	0356_SD053_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0264	0.0013	0.0277	0.0279	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Feb 2025	0356_SD055_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0039	<0.0002	0.0039	0.0055	<0.0002	<0.0002	<0.0002	0.0014	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Feb 2025	0356_SD065_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0107	0.0011	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Feb 2025	0356_SD080_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0033	0.0003	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_SD115_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0026	0.0003	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_QC100_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0036	0.0002	0.0038	0.0038	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_QC200_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.0001	0.0044	0.0003	0.0047	0.0047	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD116	18 Feb 2025	0356_SD116_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0041	0.0003	0.0044	0.0044	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Feb 2025	0356_SD539_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	0.0004	0.014	0.0029	0.0169	0.0181	<0.0002	<0.0002	0.0002	<0.0002	<0.001	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	19 Feb 2025	0356_SD563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	0.0002	0.0241	0.0003	0.0244	0.0263	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0015	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
mg/kg = milligrams per kilogram

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water						0.56			0.07																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
MW008	15 May 2019	0356_CNN0018_GW08_190515	Normal	ES1914836	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	21 Jul 2022	0356_MW008_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	02 Jul 2024	0356_MW008_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	05 Oct 2018	CNN0018_GW02_181005	Normal	ES1832291	NSW_0356_PFAS	<0.05	*0.12*	0.3	0.42	-	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	0.48	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW011	28 Feb 2019	0356_CNN0018_GW02_190228	Normal	ES1906391	NSW_0356_PFAS	0.004	*0.029*	0.054	0.083	0.176	0.019	0.008	0.002	<0.002	<0.01	0.008	0.035	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.014	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW011	15 May 2019	0356_CNN0018_GW02_190515	Normal	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	15 May 2019	0356_QC145_GW_190515	Field_D	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	15 May 2019	0356_QC245_GW_190515	Field_D	ES1914836	NSW_0356_PFAS	<0.01	*0.03*	0.06	0.09	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	21 Jul 2022	0356_MW011_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.04	0.07	<0.02	<0.02	<0.02	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW011	02 Jul 2024	0356_MW011_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.04	0.06	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	03 Oct 2018	0356_CNN0039_GW01_181003	Normal	ES1832056	NSW_0356_PFAS	0.03	*0.03*	2.17	2.2	-	0.17	0.24	<0.02	<0.02	<0.1	0.04	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	27 Feb 2019	0356_CNN0039_GW01_190227	Normal	ES1906166	NSW_0356_PFAS	0.042	*0.03*	2.68	2.71	3.96	0.293	0.461	0.017	<0.002	<0.01	0.067	0.299	0.051	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.016	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW048	10 May 2019	0356_CNN0039_GW01_190510	Normal	ES1914221	NSW_0356_PFAS	0.03	*0.02*	2.26	2.28	2.88	0.16	0.24	<0.02	<0.02	<0.1	<0.02	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_MW048_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.05	*0.02*	2.26	2.28	3.14	0.15	0.31	<0.02	<0.02	<0.1	0.04	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_QC103_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.05	*0.02*	2.24	2.26	3.15	0.19	0.31	<0.02	<0.02	<0.1	0.06	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW048	21 Jul 2022	0356_QC203_220721	Interlab_D	301227	NSW_0356_PFASOMP_22	0.06	*0.02*	2.6	2.7	3.6	0.21	0.31	0.02	<0.02	0.04	0.05	0.23	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW048	02 Jul 2024	0356_MW048_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.08	*0.06*	3.04	3.1	4.31	0.2	0.4	0.03	<0.02	<0.1	0.07	0.31	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW049	03 Oct 2018	0356_CNN0039_GW02_181003	Normal	ES1832056	NSW_0356_PFAS	0.06	*1.12*	1.26	2.38	-	0.07	0.09	0.1	<0.02	<0.1	0.03	0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW049	27 Feb 2019	0356_CNN0039_GW02_190227	Normal	ES1906166	NSW_0356_PFAS	0.169	*6.45*	3.97	10.4	11.9	0.204	0.316	0.339	<0.002	<0.01	0.057	0.36	0.048	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.03	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW049	10 May 2019	0356_CNN0039_GW02_190510	Normal	ES1914221	NSW_0356_PFAS	0.09	*2.13*	3.16	5.29	6.21	0.15	0.26	0.14	<0.02	<0.1	<0.02	0.25	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	07 May 2019	0356_CNN0039_GW03_190507	Normal	ES1913966	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	21 Jul 2022	0356_MW050_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW050	02 Jul 2024	0356_MW050_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	10 May 2019	0356_CNN0039_GW05_190510	Normal	ES1914221	NSW_0356_PFAS	0.03	*0.42*	0.53	0.95	1.09	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	21 Jul 2022	0356_MW052_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.02	*0.38*	0.28	0.66	0.79	<0.02	0.02	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW052	02 Jul 2024	0356_MW052_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.03	*0.72*	0.62	1.34	1.53	0.02	0.03	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	08 May 2019	0356_GW12_190508	Normal	ES1913970	NSW_0356_PFAS	<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	30 May 2019	0356_GW12_190530	Normal	ES1917197	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	19 Jul 2023	0356_MW056_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.12*	0.04	0.16	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_MW056_2310251125	Normal	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.09*	0.03	0.12	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_MW056_2310251200	Normal	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.06*	0.04	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	25 Oct 2023	0356_QC101_231025	Field_D	ES2336797	NSW_0356_PFASOMP_23	<0.01	*0.1*	0.03	0.13	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	24 Jan 2024	0356_MW056_240124	Normal	ES2402506	NSW_0356_PFASOMP_24	<0.01	*0.08*	0.02	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW056	03 Jul 2024	0356_MW056_240703	Normal	ES2422147	NSW_0356_PFASOMP_24	<0.01	*0.07*	0.02	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	08 May 2019	0356_HLG_GW03_190508	Normal	ES1913967	NSW_0356_PFAS	<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	21 Jul 2022	0356_MW059_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	02 Jul 2024	0356_MW059_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	07 Feb 2019	0356_NSW1164_MW01D_190207	Normal	ES1903889	NSW_0356_PFAS	<0.05	*0.07*	<0.05	0.07	0.35	0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.23	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW063	09 May 2019	0356_NSW1164_MW01D_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	19 Jul 2022	0356_MW063_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.05*	<0.01	0.05	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.24	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_MW063_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.05*	<0.01	0.05	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC105_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.05*	<0.01	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 Jul 2024	0356_QC205_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	*0.04*	<0.01	0.04	0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW071	06 Feb 2019	0356_NSW1164_MW03D_190206	Normal	ES1903889	NSW_0356_PFAS	<0.05	*0.08*	<0.05	0.08	0.15	0.07	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW071	09 May 2019	0356_NSW1164_MW03D_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW071	19 Jul 2022	0356_MW071_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW071	04 Jul 2024	0356_MW071_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	06 Feb 2019	0356_NSW1164_MW03S_190206	Normal	ES1903889	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	1.52	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	09 May 2019	0356_NSW1164_MW03S_190509	Normal	ES1914221	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	19 Jul 2022	0356_MW073_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_MW073_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC106_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	04 Jul 2024	0356_QC206_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW102	06 May 2019	0356_GW02D_190506	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	08 May 2019	0356_GW02D_190508	Normal	ES1913967	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.1	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	20 Oct 2020	0356-GW-02D-201020	Normal	ES2036949	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	21 Jul 2022	0356_MW102_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Jan 2023	0356_MW102_230118	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Jan 2023	0356_QC104_230118	Field_D	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW102	18 Jan 2023	0356_QC204_230118	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW102	17 Jul 2023	0356_MW102_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02

Table T8 - Historical Groundwater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water							0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																																
MW102	18 Feb 2025	0356_QC202_250218	Interlab_D	373633	NSW_0356_PFASOMP_25		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.2	<0.1	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.05	<0.05	<0.02	<0.02	<0.1	<0.05	<0.02	<0.1	<0.02	<0.5
MW109	10 May 2019	0356_GW03D_190510	Normal	ES1914221	NSW_0356_PFAS		<0.01	*0.28*	<0.02	0.28	1.76	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.48	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	28 May 2019	0356_GW03D_190528	Normal	ES1916262	NSW_0356_PFAS		<0.01	*0.16*	<0.02	0.16	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	19 Oct 2020	0356_QC254_201020	Interlab_D	RN1292430	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW109	20 Oct 2020	0356-GW03D-201020	Normal	ES2036949	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	20 Oct 2020	0356-QC154-201020	Field_D	ES2036949	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	21 Jul 2022	0356_MW109_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	18 Jan 2023	0356_MW109_230118	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.01	*0.06*	0.06	0.12	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	17 Jul 2023	0356_MW109_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_MW109_240123	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.01	*0.05*	0.06	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_QC102_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24		<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	23 Jan 2024	0356_QC202_240123	Interlab_D	342545	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.1	<0.02	<0.5	
MW109	04 Jul 2024	0356_MW109_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	18 Feb 2025	0356_MW109_250218	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.01	*0.11*	0.16	0.27	0.33	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	07 May 2019	0356_GW03S_190507	Normal	ES1913967	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.3	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.3	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	20 Oct 2020	0356-GW03S-201020	Normal	ES2036949	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	21 Jul 2022	0356_MW110_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	18 Jan 2023	0356_MW110_230118	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	17 Jul 2023	0356_MW110_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	23 Jan 2024	0356_MW110_240123	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	04 Jul 2024	0356_MW110_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	18 Feb 2025	0356_MW110_250218	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	06 May 2019	0356_GW04D_190506	Normal	ES1913967	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	20 Oct 2020	0356-GW04D-201020	Normal	ES2036949	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	21 Jul 2022	0356_MW114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	17 Jul 2023	0356_MW114_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	04 Jul 2024	0356_MW114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	06 May 2019	0356_GW04S_190506	Normal	ES1913967	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	20 Oct 2020	0356-GW04S-201020	Normal	ES2036949	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	21 Jul 2022	0356_MW115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	17 Jul 2023	0356_MW115_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW115	04 Jul 2024	0356_MW115_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	06 May 2019	0356_GW05S_190506	Normal	ES1913966	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	21 Jul 2022	0356_MW118_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_MW118_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_QC100_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW118	17 Jul 2023	0356_QC200_230717	Interlab_D	328563	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.1	<0.02	<0.5	
MW118	04 Jul 2024	0356_MW118_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	02 May 2019	0356_GW06_190502	Normal	ES1913385	NSW_0356_PFAS		0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	31 May 2019	0356_GW06_190531	Normal	ES1917196	NSW_0356_PFAS		0.01	<0.01	<0.02	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	19 Oct 2020	0356_GW06_201019	Normal	ES2036629	NSW_0356_PFAS		0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_MW121_220722	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_QC106_220722	Field_D	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	22 Jul 2022	0356_QC206_220722	Interlab_D	301227	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.1	<0.02	<0.5	
MW121	19 Jul 2023	0356_MW121_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW121	03 Jul 2024	0356_MW121_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	02 May 2019	0356_GW07_190502	Normal	ES1913385	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	31 May 2019	0356_GW07_190531	Normal	ES1917196	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	19 Oct 2020	0356_GW07_201019	Normal	ES2036629	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	20 Jul 2022	0356_MW124_220720	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	<0.01	0.07	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	19 Jul 2023	0356_MW124_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW124	03 Jul 2024	0356_MW124_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	03 May 2019	0356_GW08S_190503	Normal	ES1913384	NSW_0356_PFAS		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW126	22 Jul 2022	0356_MW126_220722	Normal	ES2226120	NSW_0356_PFASOMP_22		<0.01	<0.01	0.03	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	18 Jul 2023	0356_MW126_230718	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	*0.22*	0.02	0.24	0.24	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_MW126_2310250850	Normal	ES2336799	NSW_0356_PFASOMP_23		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_MW126_2310251035	Normal	ES2336799	NSW_0356_PFASOMP_23		<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	25 Oct 2023	0356_QC100_231025	Field_D	ES2336799	NSW_0356_PFASOMP_23		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	24 Jan 2024	0356_MW126_240124	Normal	ES2402508	NSW_0356_PFASOMP_24		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW126	03 Jul 2024	0356_MW126_240703	Normal	ES2422144	NSW_0356_PFASOMP_24		<0.01	<0.01	0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW128	03 May 2019	0356_GW09S_190503	Normal	ES1913384	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05

Table T8 - Historical Groundwater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water							0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																																
MW132	06 Nov 2018	0356_RESI_GW011_181106	Normal	ES1832961	NSW_0356_PFAS		<0.01	*0.02*	0.03	0.05	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW132	07 May 2019	0356_RESI_GW011_190507	Normal	ES1913968	NSW_0356_PFAS		<0.01	<0.01	0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW132	19 Jul 2022	0356_MW132_220719	Normal	ES2226118	NSW_0356_PFASOMP_22		<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	18 Dec 2018	0356_RESI_GW013_181218	Normal	ES1838112	NSW_0356_PFAS		0.02	*0.03*	0.08	0.11	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	08 May 2019	0356_RESI_GW013_190508	Normal	ES1913969	NSW_0356_PFAS		<0.01	*0.03*	0.08	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	28 May 2020	0356_RESI_GW013_200528	Normal	ES2018479	NSW_0356_PFAS		0.02	*0.04*	0.06	0.1	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	18 Jul 2023	0356_MW139_230718	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW139	04 Jul 2024	0356_MW139_240704	Normal	ES2422143	NSW_0356_PFASOMP_24		0.01	*0.03*	0.01	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	02 Oct 2018	0356_CNN0230_GW01_181002	Normal	ES1832056	NSW_0356_PFAS		<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW167	01 Mar 2019	0356_CNN0230_GW01_190301	Normal	ES1906391	NSW_0356_PFAS		<0.002	*0.012*	<0.002	0.012	0.36	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	0.348	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
MW167	15 May 2019	0356_CNN0230_GW01_190515	Normal	ES1914836	NSW_0356_PFAS		<0.01	*0.21*	0.02	0.23	0.74	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.51	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	21 Jul 2022	0356_MW167_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW167	02 Jul 2024	0356_MW167_240702	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	03 Sep 2020	0356_MW09D_200903	Normal	ES2031221	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	20 Jul 2022	0356_MW187D_220720	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	19 Jul 2023	0356_MW187D_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187D	03 Jul 2024	0356_MW187D_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_MW187S_220720	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_QC102_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	20 Jul 2022	0356_QC202_220720	Interlab_D	301227	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW187S	19 Jul 2023	0356_MW187S_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW187S	03 Jul 2024	0356_MW187S_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	03 Aug 2020	0356_QC251_200903	Interlab_D	RN1288903	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
MW188D	03 Aug 2020	QC251_200903	Interlab_D	RN1287633	NSW_0356_PFAS		<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.2	<0.01	<0.05	<0.2	<0.01	<0.05
MW188D	03 Sep 2020	0356_MW10D_200903	Normal	ES2031221	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	22 Jul 2022	0356_MW188D_220722	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	*0.02*	<0.01	0.02	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	19 Jul 2023	0356_MW188D_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	*0.03*	<0.01	0.03	0.19	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188D	03 Jul 2024	0356_MW188D_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Sep 2020	0356_MW10S_200903	Normal	ES2031221	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Sep 2020	0356_QC151_200903	Field_D	ES2031221	NSW_0356_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	22 Jul 2022	0356_MW188S_220722	Normal	ES2226474	NSW_0356_PFASOMP_22		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	19 Jul 2023	0356_MW188S_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW188S	03 Jul 2024	0356_MW188S_240703	Normal	ES2422146	NSW_0356_PFASOMP_24		<0.01	<0.01	0.04	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate
sample µg/L = micrograms per litre

Table T9 - Historical Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						10			2																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																																
OTH006	03 Apr 2019	0356_OTH006_190403	Normal	ES1910566	NSW_0356_PFAS	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_OTH006_201019	Normal	ES2036629	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_QC152_201019	Field_D	ES2036629	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Oct 2020	0356_QC252_201019	Interlab_D	RN1292419	NSW_0356_PFAS	<0.01	<0.02	<0.01	<0.02	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
OTH006	20 Jul 2022	0356_OTH006_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	0.01	*0.12*	0.11	0.23	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	18 Jan 2023	0356_OTH006_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.01	*0.16*	0.04	0.2	0.2	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Jul 2023	0356_OTH006_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	24 Jan 2024	0356_OTH006_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.12*	0.03	0.15	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	03 Jul 2024	0356_OTH006_240703	Normal	ES2422142	NSW_0356_PFASOMP_24	<0.01	*0.07*	0.02	0.09	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
OTH006	19 Feb 2025	0356_OTH006_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	08 Oct 2018	0356_SW002_SW_181008	Normal	ES1832291	NSW_0356_PFAS	0.01	*0.33*	0.34	0.67	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	28 Feb 2019	0356_SW002_190228	Normal	ES1906391	NSW_0356_PFAS	0.007	*0.18*	0.21	0.39	0.465	0.013	0.011	0.005	<0.002	<0.01	0.009	0.026	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW002	24 Apr 2019	0356_SW002_190424	Normal	ES1912502	NSW_0356_PFAS	0.02	*0.31*	0.2	0.51	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	16 Apr 2020	0356_SW002_200416	Normal	ES2013148	NSW_0356_PFAS	<0.01	*0.26*	0.24	0.5	0.54	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_SW002_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.33*	0.24	0.57	0.65	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_QC104_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.34*	0.21	0.55	0.6	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	21 Jul 2022	0356_QC204_220721	Interlab_D	301227	NSW_0356_PFASOMP_22	0.01	*0.42*	0.24	0.66	0.76	0.02	0.02	0.01	<0.02	<0.02	<0.02	0.04	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	17 Jan 2023	0356_SW002_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.05	*0.85*	0.81	1.66	2.13	0.05	0.07	0.04	<0.02	<0.1	0.04	0.2	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Jul 2023	0356_SW002_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.07	*1*	1.2	2.2	2.61	0.03	0.07	0.03	<0.02	<0.1	0.03	0.15	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	23 Jan 2024	0356_SW002_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	0.04	*0.78*	0.45	1.23	1.37	<0.02	<0.02	0.03	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	02 Jul 2024	0356_SW002_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.05	*0.67*	0.99	1.66	2.02	0.03	0.06	0.04	<0.02	<0.1	0.04	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_SW002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.03	*0.68*	0.62	1.3	1.48	0.02	0.03	0.04	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_QC101_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	0.02	*0.8*	0.55	1.35	1.52	0.02	0.02	0.05	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Feb 2025	0356_QC201_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	0.03	*0.66*	0.54	1.2	1.4	0.02	0.02	0.03	<0.02	<0.02	<0.02	0.06	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW003	30 Nov 2018	0356_SW003_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Apr 2019	0356_SW003_190417	Normal	ES1912500	NSW_0356_PFAS	0.02	*0.24*	0.23	0.47	0.61	0.06	<0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	21 Jul 2022	0356_SW003_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jan 2023	0356_SW003_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_SW003_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_QC102_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	17 Jul 2023	0356_QC202_230717	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW003	23 Jan 2024	0356_SW003_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	02 Jul 2024	0356_SW003_240724	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	18 Feb 2025	0356_SW003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	30 Nov 2018	0356_SW004_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	18 Apr 2019	0356_SW004_190418	Normal	ES1912500	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	18 Apr 2020	0356_SW004_200418	Normal	ES2013148	NSW_0356_PFAS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW004	19 Jul 2022	0356_SW004_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	19 Jan 2023	0356_SW004_230119	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	19 Jul 2023	0356_SW004_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_SW004_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC103_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004	04 Jul 2024	0356_QC203_240704	Interlab_D	355926	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	30 Nov 2018	0356_SW005_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	18 Apr 2019	0356_SW005_190418	Normal	ES1912500	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	18 Apr 2019	0356_QC241_SW_190418	Interlab_D	216434	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	18 Apr 2020	0356_SW005_200418	Normal	ES2013148	NSW_0356_PFAS	<0.002	*0.009*	0.004	0.013	0.013	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.002	<0.005
SW005	19 Jul 2022	0356_SW005_220719	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	19 Jul 2023	0356_SW005_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	04 Jul 2024	0356_SW005_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	08 Oct 2018	0356_SMA13_SW_181008	Normal	ES1832291	NSW_0356_PFAS	<0.01	*0.23*	0.12	0.35	-	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	24 Apr 2019	0356_SMA13_SW_190424	Normal	ES1912502	NSW_0356_PFAS	0.01	*0.24*	0.13	0.37	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	16 Apr 2020	0356_SMA13_200416	Normal	ES2013148	NSW_0356_PFAS	<0.01	*0.24*	0.11	0.35	0.35	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	16 Apr 2020	0356_QC101_200416	Field_D	ES2013148	NSW_0356_PFAS	<0.01	*0.27*	0.12	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	21 Jul 2022	0356_SW026_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.02	*0.76*	0.44	1.2	1.38	0.06	0.03	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Jan 2023	0356_SW026_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.02	*0.63*	0.28	0.91	1.08	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Jul 2023	0356_SW026_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.33*	0.16	0.49	0.49	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	23 Jan 2024	0356_SW026_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	0.02	*0.89*	0.32	1.21	1.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	02 Jul 2024	0356_SW026_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.01	*0.45*	0.34	0.79	0.87	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW026	17 Feb 2025	0356_SW026_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.28*	0.18	0.46	0.46	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	25 Oct 2018	0356_SWA7_SW_181025	Normal	ES1832529	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02

Table T9 - Historical Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						10			2																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
SW028	17 Jan 2023	0356_QC201_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	18 Jul 2023	0356_SW028_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	18 Jul 2023	0356_QC103_230718	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	18 Jul 2023	0356_QC203_230718	Interlab_D	328563	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	23 Jan 2024	0356_SW028_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	23 Jan 2024	0356_QC100_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	23 Jan 2024	0356_QC200_240123	Interlab_D	342545	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW028	02 Jul 2024	0356_SW028_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW028	17 Feb 2025	0356_SW028_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	22 Mar 2019	0356_SW032_190322	Normal	ES1913790	NSW_0356_PFAS	<0.01	*0.07*	0.02	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	21 Jul 2022	0356_SW032_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.03	*0.86*	0.71	1.57	1.81	0.04	0.06	<0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	17 Jan 2023	0356_SW032_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.08	*2.13*	1.69	3.82	4.85	0.17	0.21	0.07	<0.02	<0.1	0.06	0.4	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	17 Jul 2023	0356_SW032_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.04	*2.02*	1.01	3.03	3.38	0.05	0.07	0.04	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	23 Jan 2024	0356_SW032_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.32*	0.07	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_SW032_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.43*	0.24	0.67	0.67	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_QC100_240702	Field_D	ES2422149	NSW_0356_PFASOMP_24	<0.01	*0.47*	0.21	0.68	0.7	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	02 Jul 2024	0356_QC200_240702	Interlab_D	355926	NSW_0356_PFASOMP_24	0.01	*0.36*	0.22	0.58	0.64	0.02	0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW032	17 Feb 2025	0356_SW032_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	0.01	*0.54*	0.26	0.8	0.83	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	30 Nov 2018	0356_SMA8_SW_181130	Normal	ES1836301	NSW_0356_PFAS	<0.01	*0.16*	0.09	0.25	0.32	0.03	<0.02	<0.02	<0.02	<0.1	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	08 Feb 2019	0356_SMA8_SW_190208	Normal	ES1903952	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	24 Apr 2019	0356_SMA8_SW_190424	Normal	ES1912502	NSW_0356_PFAS	<0.01	*0.21*	0.1	0.31	0.31	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	24 Apr 2020	0356_SMA8_200424	Normal	ES2014144	NSW_0356_PFAS	0.01	*0.43*	0.44	0.87	0.96	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	19 Oct 2020	0356_SMA8_201019	Normal	ES2036628	NSW_0356_PFAS	<0.01	*0.35*	0.36	0.71	0.81	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	21 Jul 2022	0356_SW034_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.35*	0.24	0.59	0.64	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_SW034_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.04	*1.35*	0.55	1.9	2.29	0.05	0.05	0.03	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_QC103_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	0.04	*1.33*	0.52	1.85	2.21	0.04	0.05	0.03	<0.02	<0.1	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Jan 2023	0356_QC203_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	0.03	*1.1*	0.73	1.8	2.2	0.07	0.05	0.03	<0.02	<0.02	0.04	0.12	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW034	17 Jul 2023	0356_SW034_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	0.02	*0.54*	0.39	0.93	1.06	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	09 Apr 2024	0356_SW034_2404091500	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.22*	0.28	0.5	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	13 Apr 2024	0356_SW034_2404132200	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.22*	0.25	0.47	0.5	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Apr 2024	0356_SW034_2404172300	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.27*	0.26	0.53	0.55	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	18 Apr 2024	0356_SW034_2404180000	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.28*	0.27	0.55	0.57	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	22 Apr 2024	0356_SW034_2404221300	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.18*	0.18	0.36	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_2405041845	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.17*	0.17	0.34	0.34	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_2405042030	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.23*	0.29	0.52	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	04 May 2024	0356_SW034_2405042315	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.24*	0.34	0.58	0.64	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	05 May 2024	0356_SW034_2405050200	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.23*	0.32	0.55	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_2405060845	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.27*	0.37	0.64	0.7	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_2405060945	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.28*	0.36	0.64	0.68	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	06 May 2024	0356_SW034_2405061045	Normal	ES2414988	NSW_0356_PFASOMP_24	<0.01	*0.25*	0.35	0.6	0.66	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	02 Jul 2024	0356_SW034_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.02	*0.61*	0.55	1.16	1.33	0.03	0.03	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW034	17 Feb 2025	0356_SW034_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	*0.39*	0.2	0.59	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	11 Apr 2019	0356_RESI_SW035_190411	Normal	ES1911618	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	11 Apr 2019	0356_QC140_190411	Field_D	ES1911619	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	19 Jul 2022	0356_SW035_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Jan 2023	0356_SW035_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Jul 2023	0356_SW035_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	24 Jan 2024	0356_SW035_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	03 Jul 2024	0356_SW035_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	18 Feb 2025	0356_SW035_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	11 Apr 2019	0356_RESI_SW036_190411	Normal	ES1911618	NSW_0356_PFAS	<0.01	*0.2*	0.09	0.29	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	19 Jul 2022	0356_SW036_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.01	*0.23*	0.15	0.38	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Jan 2023	0356_SW036_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	0.03	*0.94*	0.58	1.52	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Jul 2023	0356_SW036_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	0.02	*0.58*	0.37	0.95	1.11	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	24 Jan 2024	0356_SW036_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	0.03	*0.79*	0.81	1.6	2.02	0.06	0.05	0.02	<0.02	<0.1	0.06	0.16	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	03 Jul 2024	0356_SW036_240724	Normal	ES2422144	NSW_0356_PFASOMP_24	0.01	*0.46*	0.36	0.82	0.93	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW036	18 Feb 2025	0356_SW036_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.01	*0.42*	0.21	0.63	0.65	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	12 Apr 2019	0356_RESI_SW039_190412	Normal	ES1911621	NSW_0356_PFAS	0.02	*0.08*	<0.02	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	12 Apr 2019	0356_QC240_190412	Interlab_D	215778	NSW_0356_PFAS	0.02	*0.07*	<0.01	0.07	0.12	<0.01	<0.01	<0.01	<0.02	<0.02	0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW039	20 Apr 2020	0356-RESI-SW039-200420	Normal	ES2013315	NSW_0356_PFAS	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW039	20 Jul 2022	0356_SW039_220720	Normal	ES2226119	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02

Table T9 - Historical Surface Water and Wastewater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water						10			2																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																																	
SW040	21 Jul 2022	0356_SW040_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	17 Jan 2023	0356_SW040_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	18 Jul 2023	0356_SW040_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	23 Jan 2024	0356_SW040_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	04 Jul 2024	0356_SW040_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW040	17 Feb 2025	0356_SW040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	17 Apr 2019	0356_RESI_SW041_190417	Normal	ES1912501	NSW_0356_PFAS	0.02	*0.02*	<0.02	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	17 Apr 2019	0356_QC141_190417	Field_D	ES1912500	NSW_0356_PFAS	0.01	*0.02*	<0.02	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	22 Apr 2020	0356_RESI_SW041_200422	Normal	ES2013744	NSW_0356_PFAS	<0.01	<0.01	<0.02	<0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	22 Apr 2020	0356_QC204_200422	Interlab_D	241483	NSW_0356_PFAS	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	0.03	0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW064	20 Jul 2022	0356_SW064_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	18 Jan 2023	0356_SW064_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	0.02	*0.06*	0.02	0.08	0.33	0.09	<0.02	<0.02	<0.02	<0.1	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	19 Jul 2023	0356_SW064_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	24 Jan 2024	0356_SW064_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	03 Jul 2024	0356_SW064_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW064	19 Feb 2025	0356_SW064_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.04*	<0.01	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	17 Apr 2019	0356_RESI_SW042_190417	Normal	ES1912501	NSW_0356_PFAS	0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_SW065_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_QC101_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	20 Jul 2022	0356_QC201_220720	Interlab_D	301227	NSW_0356_PFASOMP_22	<0.01	*0.02*	0.02	0.05	0.05	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW065	18 Jan 2023	0356_SW065_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.01	*0.03*	<0.01	0.03	0.11	0.05	<0.02	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_SW065_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_QC105_230719	Field_D	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Jul 2023	0356_QC205_230719	Interlab_D	328563-A	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW065	24 Jan 2024	0356_SW065_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	03 Jul 2024	0356_SW065_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW065	19 Feb 2025	0356_SW065_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW114	21 Jul 2022	0356_SW114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	*0.01*	<0.01	0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW114	04 Jul 2024	0356_SW114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW115	21 Jul 2022	0356_SW115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.01	*0.49*	0.33	0.82	0.86	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW115	02 Jul 2024	0356_SW115_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	0.03	*0.85*	0.68	1.53	1.75	0.02	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW116	21 Jul 2022	0356_SW116_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW116	04 Jul 2024	0356_SW116_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Oct 2020	0356_SW553_201019	Normal	ES2036629	NSW_0356_PFAS	0.01	*0.25*	0.28	0.53	0.65	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	20 Jul 2022	0356_SW553_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.01	*0.08*	0.07	0.15	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	18 Jan 2023	0356_SW553_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	0.01	*0.3*	0.2	0.5	0.73	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Jul 2023	0356_SW553_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	0.01	*0.22*	0.27	0.49	0.56	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	03 Jul 2024	0356_SW553_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.11*	0.14	0.25	0.25	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW553	19 Feb 2025	0356_SW553_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.03*	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	21 Jul 2022	0356_SW555_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	17 Jul 2023	0356_SW555_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW555	23 Jan 2024	0356_SW555_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	19 Jul 2023	0356_SW563_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	24 Jan 2024	0356_SW563_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	03 Jul 2024	0356_SW563_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW563	19 Feb 2025	0356_SW563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.01	*0.02*	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate
sample µg/L = micrograms per litre

Table T10 - Historical Sedidment Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																															
SD002	08 Oct 2018	0356_SD002_181008	Normal	ES1832293	NSW_0356_PFAS		<0.0002	0.0024	0.0004	0.0028	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	28 Feb 2019	0356_SD002_190228	Normal	ES1906391	NSW_0356_PFAS		<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	24 Apr 2019	0356_SD002_190424	Normal	ES1912502	NSW_0356_PFAS		<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	16 Apr 2020	0356_SD002_200416	Normal	ES2013148	NSW_0356_PFAS		<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_SD002_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		0.0002	0.0428	0.0018	0.0446	0.0448	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_QC105_220721	Field_D	ES2226191	NSW_0356_PFASOMP_22		0.0002	0.0345	0.0017	0.0362	0.0372	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	21 Jul 2022	0356_QC205_220721	Interlab_D	301227	NSW_0356_PFASOMP_22		<0.0001	0.037	0.0017	0.039	0.04	<0.0001	<0.0001	0.0002	0.0003	0.0002	0.0002	0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD002	17 Jan 2023	0356_SD002_230117	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.0002	0.006	0.0018	0.0078	0.0088	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	17 Jul 2023	0356_SD002_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.0002	0.0013	0.0003	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	23 Jan 2024	0356_SD002_240123	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.0002	0.0038	0.0005	0.0043	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	02 Jul 2024	0356_SD002_240702	Normal	ES2422149	NSW_0356_PFASOMP_24		0.0002	0.0087	0.0016	0.0103	0.011	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD002	17 Feb 2025	0356_SD002_250217	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.0002	0.0045	0.0006	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	05 Oct 2018	0356_SD003_181005	Normal	ES1832293	NSW_0356_PFAS		<0.0002	0.0009	<0.0002	0.0009	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	28 Feb 2019	0356_SD003_190228	Normal	ES1906391	NSW_0356_PFAS		<0.0002	0.0013	<0.0002	0.0013	0.0013	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Apr 2019	0356_SD003_190417	Normal	ES1912500	NSW_0356_PFAS		<0.0002	0.0334	0.0035	0.0369	0.0386	0.0002	<0.0002	<0.0002	0.0004	<0.001	0.0003	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	21 Jul 2022	0356_SD003_220721	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.0002	0.0026	<0.0002	0.0026	0.0026	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jan 2023	0356_SD003_230117	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_SD003_230717	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_QC101_230717	Field_D	ES2324262	NSW_0356_PFASOMP_23		<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	17 Jul 2023	0356_QC201_230717	Interlab_D	328563	NSW_0356_PFASOMP_23		<0.0001	0.0032	0.0002	0.0034	0.0034	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0002	<0.0005	<0.005	<0.002	<0.002	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.002	<0.005	<0.0002	<0.01	<0.001	<0.0004	<0.005
SD003	23 Jan 2024	0356_SD003_240123	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	23 Jan 2024	0356_QC104_240123	Field_D	ES2402575	NSW_0356_PFASOMP_24		<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	23 Jan 2024	0356_QC204_240123	Interlab_D	342545	NSW_0356_PFASOMP_24		<0.0001	0.0011	<0.0001	0.0011	0.0011	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD003	02 Jul 2024	0356_SD003_240702	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.0002	0.0045	0.0006	0.0051	0.0053	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD003	18 Feb 2025	0356_SD003_250218	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.0002	0.0041	0.0004	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	12 Oct 2018	0356_SD004_181012	Normal	ES1832293	NSW_0356_PFAS		<0.0002	0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	17 Jan 2019	0356_NSW1164_SD004_190117	Normal	ES1902070	NSW_0356_PFAS		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	05 Mar 2019	0356_SD004_190305	Normal	ES1906973	NSW_0356_PFAS		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	18 Apr 2019	0356_SD004_190418	Normal	ES1912500	NSW_0356_PFAS		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	18 Apr 2020	0356_SD004_200418	Normal	ES2013148	NSW_0356_PFAS		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jul 2022	0356_SD004_220719	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jan 2023	0356_SD004_230119	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Jul 2023	0356_SD004_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	24 Jan 2024	0356_SD004_240124	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_SD004_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC104_240704	Field_D	ES2422149	NSW_0356_PFASOMP_24		<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	04 Jul 2024	0356_QC204_240704	Interlab_D	355926	NSW_0356_PFASOMP_24		<0.0001	0.0002	<0.0001	0.0002	0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD004	19 Feb 2025	0356_SD004_250219	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Feb 2025	0356_QC103_250219	Field_D	ES2504738	NSW_0356_PFASOMP_25		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD004	19 Feb 2025	0356_QC203_250219	Interlab_D	373633	NSW_0356_PFASOMP_25		<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD005	12 Oct 2018	0356_SD005_181012	Normal	ES1832293	NSW_0356_PFAS		<0.0002	0.0004	<0.0002	0.0004	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_NSW1164_SD005_190118	Normal	ES1902070	NSW_0356_PFAS		<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_SD_QC100_190118	Field_D	ES1902070	NSW_0356_PFAS		<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Jan 2019	0356_SD_QC200_190118	Interlab_D	210062	NSW_0356_PFAS		<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD005	05 Mar 2019	0356_SD005_190305	Normal	ES1906973	NSW_0356_PFAS		<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Apr 2019	0356_SD005_190418	Normal	ES1912500	NSW_0356_PFAS		<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	18 Apr 2019	0356_QC241_SD_190418	Interlab_D	216434	NSW_0356_PFAS		<0.0001	0.0004	<0.0001	0.0004	0.0004	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.005
SD005	18 Apr 2020	0356_SD005_200418	Normal	ES2013148	NSW_0356_PFAS		<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jul 2022	0356_SD005_220719	Normal	ES2226191	NSW_0356_PFASOMP_22		<0.0002	0.0018	<0.0002	0.0018	0.0018	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jan 2023	0356_SD005_230119	Normal	ES2301936	NSW_0356_PFASOMP_23		<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Jul 2023	0356_SD005_230719	Normal	ES2324262	NSW_0356_PFASOMP_23		<0.0002	0.0009	<0.0002	0.0009	0.0009	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	24 Jan 2024	0356_SD005_240124	Normal	ES2402575	NSW_0356_PFASOMP_24		<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	04 Jul 2024	0356_SD005_240704	Normal	ES2422149	NSW_0356_PFASOMP_24		<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD005	19 Feb 2025	0356_SD005_250219	Normal	ES2504738	NSW_0356_PFASOMP_25		<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002

Table T10 - Historical Sedidment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
SD039	24 Jan 2024	0356_SD039_240124	Normal	ES2402507	NSW_0356_PFASOMP_24	<0.0002	0.0036	<0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	03 Jul 2024	0356_SD039_240703	Normal	ES2422145	NSW_0356_PFASOMP_24	<0.0002	0.004	<0.0002	0.004	0.004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD039	18 Feb 2025	0356_SD039_250218	Normal	ES2504728	NSW_0356_PFASOMP_25	<0.0002	0.0041	<0.0002	0.0041	0.0041	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	07 May 2019	0356_SD040_190507	Normal	ES1913967	NSW_0356_PFAS	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	21 Jul 2022	0356_SD040_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	17 Jan 2023	0356_SD040_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	18 Jul 2023	0356_SD040_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	23 Jan 2024	0356_SD040_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	04 Jul 2024	0356_SD040_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0002	<0.0002	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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD040	17 Feb 2025	0356_SD040_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	17 Apr 2019	0356_RESI_SD041_190417	Normal	ES1912501	NSW_0356_PFAS	<0.0002	0.0034	<0.0002	0.0034	0.0034	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	17 Apr 2019	0356_QC141_190417	Field_D	ES1912500	NSW_0356_PFAS	<0.0002	0.0028	<0.0002	0.0028	0.0028	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	22 Apr 2020	0356_RESI_SD041_200422	Normal	ES2013744	NSW_0356_PFAS	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	22 Apr 2020	0356_QC203_200422	Interlab_D	241483	NSW_0356_PFAS	<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0004	<0.0004	<0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002	<0.0004	<0.002	<0.002	<0.0004	<0.01
SD046	20 Jul 2022	0356_SD046_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.0002	0.0034	0.0002	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	18 Jan 2023	0356_SD046_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	19 Jul 2023	0356_SD046_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	24 Jan 2024	0356_SD046_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.0002	0.007	<0.0002	0.007	0.007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	03 Jul 2024	0356_SD046_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD046	19 Feb 2025	0356_SD046_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0024	<0.0002	0.0024	0.0024	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	17 Apr 2019	0356_RESI_SD042_190417	Normal	ES1912501	NSW_0356_PFAS	<0.0002	0.0047	<0.0002	0.0047	0.0049	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_SD047_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.0002	0.0075	<0.0002	0.0075	0.0075	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_QC100_220720	Field_D	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0081	0.0002	0.0083	0.0085	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	20 Jul 2022	0356_QC200_220720	Interlab_D	301227	NSW_0356_PFASOMP_22	0.0002	0.0094	0.0002	0.0096	0.0099	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD047	18 Jan 2023	0356_SD047_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.0002	0.0048	0.0003	0.0051	0.0051	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	19 Jul 2023	0356_SD047_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	24 Jan 2024	0356_SD047_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	03 Jul 2024	0356_SD047_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD047	19 Feb 2025	0356_SD047_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	11 Apr 2019	0356_RESI_SD035_190411	Normal	ES1911618	NSW_0356_PFAS	<0.0002	0.0012	0.0003	0.0015	0.0015	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	11 Apr 2019	0356_QC140_190411	Field_D	ES1911619	NSW_0356_PFAS	<0.0002	0.0017	0.0003	0.002	0.002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	19 Jul 2022	0356_SD052_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.0002	0.0009	<0.0002	0.0009	0.0019	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Jan 2023	0356_SD052_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Jul 2023	0356_SD052_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	24 Jan 2024	0356_SD052_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.0002	0.0004	<0.0002	0.0004	0.0004	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	03 Jul 2024	0356_SD052_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.0002	0.0014	<0.0002	0.0014	0.0014	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD052	18 Feb 2025	0356_SD052_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0008	<0.0002	0.0008	0.0008	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	08 Oct 2018	0356_SMA13_SD_181008	Normal	ES1832293	NSW_0356_PFAS	<0.0002	0.002	<0.0002	0.002	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	28 Feb 2019	0356_SMA13__SD_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.0226	0.0011	0.0237	0.0237	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	24 Apr 2019	0356_SMA13_SD_190424	Normal	ES1912502	NSW_0356_PFAS	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	16 Apr 2020	0356_SMA13_SD_200416	Normal	ES2013148	NSW_0356_PFAS	<0.0002	0.0118	<0.0002	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	16 Apr 2020	0356_QC102_200416	Field_D	ES2013148	NSW_0356_PFAS	<0.0002	0.0613	0.0004	0.0617	0.0617	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	21 Jul 2022	0356_SD053_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0043	0.0002	0.0045	0.0045	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Jan 2023	0356_SD053_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0051	0.0004	0.0055	0.0055	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Jul 2023	0356_SD053_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0017	<0.0002	0.0017	0.0017	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	23 Jan 2024	0356_SD053_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0016	0.0002	0.0018	0.0018	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	02 Jul 2024	0356_SD053_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.005	0.0005	0.0055	0.0055	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD053	17 Feb 2025	0356_SD053_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0264	0.0013	0.0277	0.0279	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_SMA7_SD_181025	Normal	ES1832529	NSW_0356_PFAS	<0.0002	0.0048	0.0006	0.0054	-	<0.0002	<0.0002	<0.0002	0.0017	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	ES1832529	NSW_0356_PFAS	<0.0002	0.0053	0.0004	0.0057	-	<0.0002	<0.0002	<0.0002	0.0018	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_QC134_SD_181025	Field_D	ES1832714	NSW_0356_PFAS	<0.0002	0.0012	<0.0002	0.0012	-	<0.0002	<0.0002	<0.0002	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	25 Oct 2018	0356_QC234_SD_181025	Interlab_D	204852	NSW_0356_PFAS	<0.0002	0.0027	<0.0002	0.0027	0.0057	<0.0002	<0.0002	<0.0002	0.003	<0.0004	<0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002	<0.0004	<0.002	<0.002	<0.0004	<0.01
SD055	28 Feb 2019	0356_SMA7__SD_190228	Normal	ES1906391	NSW_0356_PFAS	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	17 Apr 2019	0356_SMA7_SD_190417	Normal	ES1912500	NSW_0356_PFAS	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD055	21 Jul 2022	0356_SD055_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0026	0.0003	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0

Table T10 - Historical Sedidment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	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	N-methyl perfluorooctane sulfonamidoethanol	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location	Date	Field ID	Sample Type	Lab Report #	Project ID																													
SD065	21 Jul 2022	0356_SD065_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_SD065_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0006	<0.0002	0.0006	0.0006	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_QC102_230117	Field_D	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Jan 2023	0356_QC202_230117	Interlab_D	314827	NSW_0356_PFASOMP_23	<0.0001	0.0006	0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD065	17 Jul 2023	0356_SD065_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	23 Jan 2024	0356_SD065_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0064	0.0007	0.0071	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	02 Jul 2024	0356_SD065_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0095	0.0019	0.0114	0.0114	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD065	17 Feb 2025	0356_SD065_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0107	0.0011	0.0118	0.0118	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	16 Nov 2018	0356_RESI_SD013_181116	Normal	ES1834282	NSW_0356_PFAS	<0.0002	0.0135	0.0024	0.0159	-	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	20 Apr 2020	0356_RESI_SD013_200420	Normal	ES2013314	NSW_0356_PFAS	<0.0002	0.0111	0.0013	0.0124	0.0124	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	20 Apr 2020	0356_QC103_200420	Field_D	ES2013314	NSW_0356_PFAS	<0.0002	0.0118	0.0014	0.0132	0.0132	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	19 Jul 2022	0356_SD080_220719	Normal	ES2226120	NSW_0356_PFASOMP_22	<0.0002	0.001	<0.0002	0.001	0.001	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Jan 2023	0356_SD080_230118	Normal	ES2301792	NSW_0356_PFASOMP_23	<0.0002	0.0189	0.0021	0.021	0.0213	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Jul 2023	0356_SD080_230718	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0235	0.0018	0.0253	0.0253	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	24 Jan 2024	0356_SD080_240124	Normal	ES2402508	NSW_0356_PFASOMP_24	<0.0002	0.0045	0.0003	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	03 Jul 2024	0356_SD080_240703	Normal	ES2422144	NSW_0356_PFASOMP_24	<0.0002	0.0205	0.0014	0.0219	0.0219	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD080	18 Feb 2025	0356_SD080_250218	Normal	ES2504727	NSW_0356_PFASOMP_25	<0.0002	0.0033	0.0003	0.0036	0.0036	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	21 Jul 2022	0356_SD114_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0029	<0.0002	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	17 Jan 2023	0356_SD114_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0023	<0.0002	0.0023	0.0023	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	17 Jul 2023	0356_SD114_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0011	<0.0002	0.0011	0.0011	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	23 Jan 2024	0356_SD114_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0092	0.0002	0.0094	0.0094	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD114	04 Jul 2024	0356_SD114_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0005	<0.0002	0.0005	0.0005	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	21 Jul 2022	0356_SD115_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	0.0002	0.0457	0.0023	0.048	0.0496	<0.0002	<0.0002	<0.0002	0.001	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Jan 2023	0356_SD115_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	0.0003	0.0351	0.0023	0.0374	0.0391	<0.0002	<0.0002	<0.0002	0.0007	<0.001	0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Jul 2023	0356_SD115_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0226	0.0013	0.0239	0.0242	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	23 Jan 2024	0356_SD115_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0114	0.0012	0.0126	0.0129	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	02 Jul 2024	0356_SD115_240702	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0362	0.0009	0.0371	0.0371	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_SD115_250217	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0026	0.0003	0.0029	0.0029	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_QC100_250217	Field_D	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0036	0.0002	0.0038	0.0038	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD115	17 Feb 2025	0356_QC200_250217	Interlab_D	373633	NSW_0356_PFASOMP_25	<0.0001	0.0044	0.0003	0.0047	0.0047	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD116	21 Jul 2022	0356_SD116_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	17 Jan 2023	0356_SD116_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	17 Jul 2023	0356_SD116_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0007	<0.0002	0.0007	0.0007	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	23 Jan 2024	0356_SD116_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0046	0.0002	0.0048	0.0048	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	04 Jul 2024	0356_SD116_240704	Normal	ES2422149	NSW_0356_PFASOMP_24	<0.0002	0.0016	0.0004	0.002	0.002	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD116	18 Feb 2025	0356_SD116_250218	Normal	ES2504738	NSW_0356_PFASOMP_25	<0.0002	0.0041	0.0003	0.0044	0.0044	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Oct 2020	0356_SD539_201019	Normal	ES2036629	NSW_0356_PFAS	<0.0002	0.0088	0.0008	0.0096	0.0096	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	20 Jul 2022	0356_SD539_220720	Normal	ES2226474	NSW_0356_PFASOMP_22	<0.0002	0.0016	<0.0002	0.0016	0.0016	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	18 Jan 2023	0356_SD539_230118	Normal	ES2301793	NSW_0356_PFASOMP_23	<0.0002	0.0112	0.0004	0.0116	0.0116	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Jul 2023	0356_SD539_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0052	0.0002	0.0054	0.0054	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	24 Jan 2024	0356_SD539_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	0.0002	0.0244	0.0053	0.0297	0.0307	<0.0002	0.0002	0.0002	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	03 Jul 2024	0356_SD539_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	<0.0002	0.0069	0.0004	0.0073	0.0073	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD539	19 Feb 2025	0356_SD539_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	0.0004	0.014	0.0029	0.0169	0.0181	<0.0002	<0.0002	0.0002	<0.0002	<0.001	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	21 Jul 2022	0356_SD555_220721	Normal	ES2226191	NSW_0356_PFASOMP_22	<0.0002	0.0003	<0.0002	0.0003	0.0003	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	17 Jan 2023	0356_SD555_230117	Normal	ES2301936	NSW_0356_PFASOMP_23	<0.0002	0.0011	0.0002	0.0013	0.0013	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	17 Jul 2023	0356_SD555_230717	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0012	<0.0002	0.0012	0.0012	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD555	23 Jan 2024	0356_SD555_240123	Normal	ES2402575	NSW_0356_PFASOMP_24	<0.0002	0.0046	<0.0002	0.0046	0.0046	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	19 Jul 2023	0356_SD563_230719	Normal	ES2324262	NSW_0356_PFASOMP_23	<0.0002	0.0044	<0.0002	0.0044	0.0044	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	24 Jan 2024	0356_SD563_240124	Normal	ES2402510	NSW_0356_PFASOMP_24	0.0002	0.0168	<0.0002	0.0168	0.017	<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	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD563	03 Jul 2024	0356_SD563_240703	Normal	ES2422146	NSW_0356_PFASOMP_24	0.0029	0.106	0.0012	0.107	0.117	<0.0002	<0.0002	0.0006	0.0006	<0.001	<0.0002	<0.0002	0.0003	0.001	0.0008	0.0003	0.0003	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0021	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005
SD563	19 Feb 2025	0356_SD563_250219	Normal	ES2504729	NSW_0356_PFASOMP_25	0.0002	0.0241	0.0003	0.0244	0.0263	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0015	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Notes
LOR = Limit of reporting
Normal = Primary sample
Field_D = Intra-laboratory duplicate sample
Interlab_D = Inter-laboratory duplicate sample
mg/kg = milligrams per kilogram

Appendix C

Calibration Certificates

Certificate of Service and Calibration

Interface Meter

Heron H.Oil

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	[redacted]
Contact Name	[redacted]
Instrument	Heron H.Oil Interface Meter (30m)
Serial Number	01-8640
Client Name	[redacted] (AECOM)
Project Number	60739111/2.9.1

Instrument Check			
Item	Test	Test Passed	Comments
9V Battery	Klein Tools MM300 Multimeter	✓	Battery voltage reading above 7.9V
Battery Box	Check	✓	No damage
Face and Back Plates	Check	✓	No damage
Thumb Screws	Check	✓	Rubber ends intact
Tape Hangar/Protector	Check	✓	No damage
On/Off Button	Operation	✓	Button is functional
Buzzer	Operation	✓	Intermittent tone in H_2O, solid tone in product
LED Signal Light	Operation	✓	LED light functional – green and red
Probe	Operation/Check	✓	Decontaminated, cleaned and tested
Tape	Condition/Check	✓	Decontaminated and cleaned, no damage
Connection	Check	✓	Probe and link connected correctly and tightly
PCB	Operation	✓	Unit is fully functional
Electronics Panel	Orientation	✓	Correctly aligned

Instrument Readings		
Product	Buzzer	LED Light
H_2O	Intermittent	Blinking – Red
Petroleum	Solid	Steady – Red

Declaration
WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The interface meter was decontaminated, cleaned and tested with a mixture of tap water and petrol, shielded from ambient light.

Checked By	[redacted]
Calibration Date	13/02/2025
Calibration Due	13/08/2025

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WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration
Water Quality Meter
YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	[redacted]
Contact Name	[redacted]
Instrument	YSI Pro Quatro Water Quality Meter w/ 1m Quatro Cable
Serial Number	24A101653
Client Name	[redacted] (AECOM)
Project Number	60739111/2.9.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	26.3	26.6	29.3	°C
pH	pH 4.00	417183	4.01	3.95	4.01	pH
pH	pH 7.00	419528	7.00	6.99	7.00	pH
Conductivity	2760 µs/cm at 25°C	399819	2760	2737	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	420448/418958	226.1	219.0	226.1	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	426184	0.0	-0.4	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	105.4	100.0	%

Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	[redacted]
Calibration Date	13/02/2025
Calibration Due	13/08/2025

WAM Scientific:
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AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP 2025	**Project Number:**	60739111
Project Location:	Singleton Military Area	**Client:**	DoD
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	YSI Pro Quatro
Serial Number:	24A101653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	17/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.0	2223		
Calibration Reading:	7.10	4.06	2220		
Calibration Temperature:	17.0	17.1	16.6		

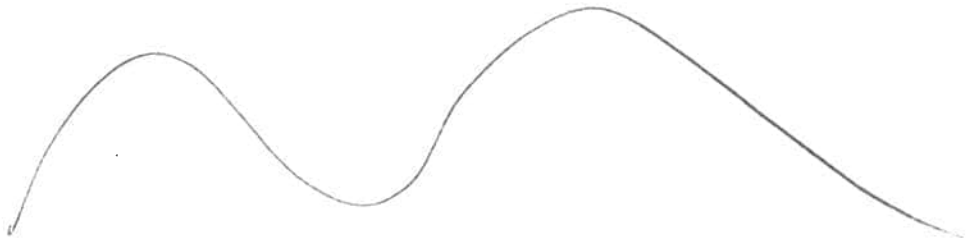
ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	17/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.0	2223	0	
Bump Test Reading:	7.06	14.03	2221	0.8	
Bump Test Temperature:	16.5	17.1	16.6	18.0	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.



Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted] — Fieldwork Staff Signature

17/2/25 — Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP 2025	**Project Number:**	60739111
Project Location:	Singleton Military Area	**Client:**	DoD
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	YSI Pro Quatro
Serial Number:	24A101653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	18/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.0	2391		
Calibration Reading:	7.06	4.09	2404		
Calibration Temperature:	16.9	17.1	18.2		

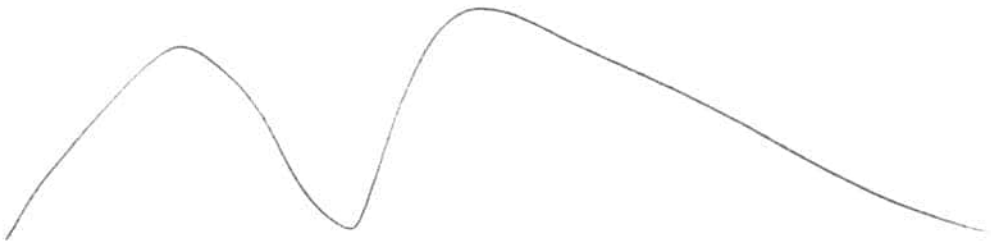
ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	18/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.0	2391	0	
Bump Test Reading:	7.04	4.03	2394	0.2	
Bump Test Temperature:	17.1	17.2	18.2	18.1	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.



Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted]

Fieldwork Staff Signature

18/2/25

Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP 2025	**Project Number:**	60739111
Project Location:	Singleton Military Area	**Client:**	DoD
PM Name:	[redacted]	**Fieldwork Staff Name:**	[redacted]

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	YSI Pro Quatro
Serial Number:	24A101653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	19/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2391		
Calibration Reading:	7.06	4.06	2399		
Calibration Temperature:	17.2	17.1	18.3		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	19/2/25				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2391	0	
Bump Test Reading:	7.03	4.02	2393	0.8	
Bump Test Temperature:	17.0	16.9	18.2	18.1	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

[redacted]

Fieldwork Staff Signature

19/2/25

Date

Distribution: Project Central File

Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60739111	Validation by:	[redacted]	Date:	05/03/2025
Client:	Department of Defence	Data verified by:	[redacted]	Date:	20/03/2025
Site:	Singleton Military Area	Project Manager:	[redacted]		
Matrix type:	Groundwater, surface water, sediment, wastewater				
Primary samples:	3 groundwater samples, 14 surface water samples, 18 sediment samples, 1 wastewater effluent sample				
Laboratory:	Primary laboratory: ALS. Secondary laboratory: Envirolab				
Lab reference:	ALS: ES2504738, ES2504729, ES2504728, ES2504727. Envirolab: 373633				

Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.
Field Quality Assurance and Quality Control	
Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024).
Sampling personnel	Sampling was conducted between 17/02/2025 and 19/02/2025. Field personnel were suitably qualified and experienced AECOM Environmental Scientists.
Sampling methodology	All water and sediment samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2024). After each sample was collected, reusable equipment was decontaminated using Liquinox and potable water and the consumables (nitrile gloves, HydraSleeve™ materials and bailers) were disposed of in waste bins.
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling where equipment was re-used and decontaminated between sample points. Rinsate blank samples were either collected from the final rinse of the interface probe or sampling trowel following decontamination, using laboratory-supplied de-ionised water.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were collected at a frequency of 1 in ten primary samples (10%), meeting the DQI. In total: • 2 water field duplicates and 2 water field triplicates were collected (11.1%) for 18 primary water samples • 2 sediment field duplicates and 2 sediment field triplicates were collected (11.1%) for 18 primary sediment samples in total.
Handling and preservation	All samples were received by the primary laboratory in appropriate containers, with ice present, at 1.4 °C, within the recommended temperature range (<6°C). All samples were received by the secondary laboratory in appropriate containers, with ice present, at 3.0 °C, within the recommended temperature range (<6°C).
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Measurements of depth to groundwater were undertaken using an interface probe, which was serviced by the supplier prior to use. All equipment calibration and service certificates are presented in Appendix C.
Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2024).

DATA VALIDATION REPORT

Tests requested/ reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) full suite, at the standard level of detection. All sample requests for analysis are reported on the Chain of Custody (COC) and email amendments.
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory (ALS) reported sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision.
Method blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for both laboratories.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits. This is presented in the Quality Control Reports for the primary laboratory.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.
QA/QC Data Evaluation	
Anomalous data / Repeat analysis	No anomalies between field observations and analytical results were noted. No repeat analysis was required.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	With the exception of the PFAS NEMP Freshwater 99% species protection (HEPA 2020) values for PFOS, the laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate blank sample results	The concentrations of PFAS in the rinsate blank samples (Table D3) were below the LOR, indicating decontamination procedures were adequate.
RPDs for field duplicates / triplicates	RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported (Table D1 and Table D2) within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR), with the exception of the following: • Perfluorooctane sulfonic acid (PFOS) (51%) in 0356_SD115_250217 / 0356_QC200_250217 The elevated RPD is likely to be attributed to the heterogeneous nature of the sediment sampled and it is considered acceptable given that the concentrations are less than 10 x LOR, where precision is low, and are within the same order of magnitude. The highest concentrations have been adopted for quantitative purposes.

Overall Assessment
Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Water Duplicate RPDs

Table D2 – Sediment Duplicate RPDs

Table D3 – Rinsate Blank Results

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2504738	ES2504738		ES2504738	373633		ES2504738	ES2504738		ES2504738	373633	
Field ID			0356_SW002_250217	0356_QC101_250217		0356_SW002_250217	0356_QC201_250217		0356_MW102_250218	0356_QC102_250218		0356_MW102_250218	0356_QC202_250218	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water	
Date			17 Feb 2025	17 Feb 2025	RPD	17 Feb 2025	17 Feb 2025	RPD	18 Feb 2025	18 Feb 2025	RPD	18 Feb 2025	18 Feb 2025	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.03	0.02	40	0.03	0.03	0	<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.68	0.80	16	0.68	0.66	3	<0.01	<0.01	nc	<0.01	<0.01	nc
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.62	0.55	12	0.62	0.54	14	<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFHxS and PFOS	µg/L	0.01	1.30	1.35	4	1.30	1.2	8	<0.01	<0.01	nc	<0.01	<0.01	nc
Sum of PFAS	µg/L	0.01	1.48	1.52	3	1.48	1.4	6	<0.01	<0.01	nc	<0.01	<0.01	nc
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	-	-	<0.02	<0.02	nc	<0.02	-	-
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.02	0.02	0	0.02	0.02	0	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.03	0.02	40	0.03	0.02	40	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	0.04	0.05	22	0.04	0.03	29	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorononanesulfonic acid (PFNS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	-	-	<0.02	<0.02	nc	<0.02	-	-
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	-	-	<0.05	<0.05	nc	<0.05	-	-
Perfluorobutanoic acid (PFBA)	µg/L	0.02	<0.1	<0.1	nc	<0.1	<0.02	nc	<0.1	<0.1	nc	<0.1	<0.2	nc
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.06	0.06	0	0.06	0.06	0	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.05	nc	<0.02	<0.02	nc	<0.02	<0.05	nc
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.1	nc	<0.05	<0.05	nc	<0.05	<0.1	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are <LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D2 - Sediment Duplicate RPDs

Lab Report Number			ES2504738	ES2504738		ES2504738	373633		ES2504738	ES2504738		ES2504738	373633	
Field ID			0356_SD115_250217	0356_QC100_250217		0356_SD115_250217	0356_QC200_250217		0356_SD004_250219	0356_QC103_250219		0356_SD004_250219	0356_QC203_250219	
Matrix Type			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Date			17 Feb 2025	17 Feb 2025	RPD	17 Feb 2025	17 Feb 2025	RPD	19 Feb 2025	19 Feb 2025	RPD	19 Feb 2025	19 Feb 2025	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0001	0.0026	0.0036	32	0.0026	0.0044	51	<0.0002	<0.0002	nc	<0.0002	0.0001	nc
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0001	0.0003	0.0002	40	0.0003	0.0003	0	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Sum of PFHxS and PFOS	mg/kg	0.0001	0.0029	0.0038	27	0.0029	0.0047	47	<0.0002	<0.0002	nc	<0.0002	0.0001	nc
Sum of PFAS	mg/kg	0.0001	0.0029	0.0038	27	0.0029	0.0047	47	<0.0002	<0.0002	nc	<0.0002	0.0001	nc
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	-	-	<0.0005	<0.0005	nc	<0.0005	-	-
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorononanesulfonic acid (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	-	-	<0.0002	<0.0002	nc	<0.0002	-	-
Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	mg/kg	0.0002	<0.001	<0.001	nc	<0.001	<0.0002	nc	<0.001	<0.001	nc	<0.001	<0.0002	nc
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorononanoic acid (PFNA)	mg/kg	0.0001	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc	<0.0002	<0.0002	nc	<0.0002	<0.0001	nc
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc	<0.0002	<0.0002	nc	<0.0002	<0.0005	nc
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	<0.005	nc	<0.0005	<0.0005	nc	<0.0005	<0.005	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0001	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0001	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc	<0.0005	<0.0005	nc	<0.0005	<0.0001	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0002	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0002	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc	<0.0005	<0.0005	nc	<0.0005	<0.0002	nc
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.001	nc	<0.0002	<0.0002	nc	<0.0002	<0.001	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	<0.001	nc	<0.0005	<0.0005	nc	<0.0005	<0.001	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	nc	<0.0005	<0.005	nc	<0.0005	<0.0005	nc	<0.0005	<0.005	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are <LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D3 - Rinsate Blank Results

	Lab Report Number		ES2504738	ES2504738	ES2504738
	Field ID		0356_QC300_250217	0356_QC301_250218	0356_QC302_250219
	Matrix Type		Water	Water	Water
	Date		17 Feb 2025	18 Feb 2025	19 Feb 2025
	Unit	LOR			
PFAS					
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01
Sum of PFAS	µg/L	0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Sulfonic Acids					
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorononanesulfonic acid (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Carboxylic Acids					
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	<0.05
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05
PFAS - (n:2) Fluorotelomer Sulfonic Acids					
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamides					
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05

Notes
LOR = Limit of Reporting

Appendix E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

Work Order	: **ES2504727**	Page	: 1 of 9
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025 16:50
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79233	Issue Date	: 26-Feb-2025 14:39
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0356_SD052_250218	0356_SD080_250218	----	----	----
			Sampling date / time	18-Feb-2025 11:59	18-Feb-2025 12:19	----	----	----
Compound	CAS Number	LOR	Unit	ES2504727-001	ES2504727-002	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**34.6**	**21.8**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	**0.0003**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0008**	**0.0033**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD052_250218	0356_SD080_250218	----	----	----
				Sampling date / time	18-Feb-2025 11:59	18-Feb-2025 12:19	----	----	----
Compound	CAS Number	LOR	Unit		ES2504727-001	ES2504727-002	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0008**	**0.0036**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0008**	**0.0036**	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0008**	**0.0036**	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD052_250218	0356_SD080_250218	----	----	----
				Sampling date / time	18-Feb-2025 11:59	18-Feb-2025 12:19	----	----	----
Compound	CAS Number	LOR	Unit		ES2504727-001	ES2504727-002	--------	--------	--------
					Result	Result	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**101**	**105**	**----**	**----**	**----**
13C8-PFOA	----	0.0002	%		**108**	**105**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW035_250218	0356_SW036_250218	----	----	----
				Sampling date / time	18-Feb-2025 12:07	18-Feb-2025 12:27	----	----	----
Compound	CAS Number	LOR	Unit		ES2504727-003	ES2504727-004	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.21**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.42**	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW035_250218	0356_SW036_250218	----	----	----
				Sampling date / time	18-Feb-2025 12:07	18-Feb-2025 12:27	----	----	----
Compound	CAS Number	LOR	Unit		ES2504727-003	ES2504727-004	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.65**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.63**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.65**	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW035_250218	0356_SW036_250218	----	----	----
				Sampling date / time	18-Feb-2025 12:07	18-Feb-2025 12:27	----	----	----
Compound	CAS Number	LOR	Unit		ES2504727-003	ES2504727-004	--------	--------	--------
					Result	Result	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**102**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**110**	**112**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2504727**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79233	Issue Date	: 26-Feb-2025
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
[redacted]	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6391920)									
EN2502882-001	Anonymous	EA055: Moisture Content	----	0.1	%	37.4	39.9	6.3	0% - 20%
ES2504729-002	Anonymous	EA055: Moisture Content	----	0.1	%	18.9	18.0	4.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	0356_SD052_250218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0009	13.1	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0041	0.0042	0.0	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424)									
ES2504727-001	0356_SD052_250218	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424) - continued									
ES2504727-001	0356_SD052_250218	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424)									
ES2504727-001	0356_SD052_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424) - continued									
ES2504738-009	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	0356_SD052_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	0356_SW035_250218	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.18	13.9	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495) - continued									
ES2504738-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392495)									
ES2504727-003	0356_SW035_250218	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495)									
ES2504727-003	0356_SW035_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495) - continued									
ES2504727-003	0356_SW035_250218	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	0356_SW035_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6392495)									
ES2504727-003	0356_SW035_250218	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	0.01	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.33	0.36	8.7	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.3	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	104	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	83.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.0	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.5	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	61.0	139

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	113	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	88.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	91.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	93.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	108	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.1	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	106	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.1	66.0	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.9	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	116	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	0356_SD052_250218	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.00125 mg/kg	90.1	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	108	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	99.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	113	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	86.8	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.00125 mg/kg	118	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	110	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)							
ES2504727-001	0356_SD052_250218	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	104	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	103	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	106	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	115	69.0	135

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424) - continued							
ES2504727-001	0356_SD052_250218	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	110	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)							
ES2504727-001	0356_SD052_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.3	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.8	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	88.4	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	102	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	0356_SD052_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	93.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	118	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	116	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	108	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	95.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	87.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	111	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	93.3	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	109	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	88.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495) - continued							
ES2504729-008	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	91.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	106	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	105	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	92.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	104	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.3	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2504727**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Site	: Private	Issue Date	: 26-Feb-2025
Sampler	: [redacted]	No. of samples received	: 4
Order number	: 60739111_2.9.1	No. of samples analysed	: 4

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**----**	----	----	**21-Feb-2025**	04-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD052_250218, 0356_SD080_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW035_250218, 0356_SW036_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW035_250218, 0356_SW036_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_SW035_250218, 0356_SW036_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW035_250218, 0356_SW036_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_SW035_250218, 0356_SW036_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2504727**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0356_PFASOMP_25	Page	: 1 of 3
Order number	: 60739111_2.9.1	Quote number	: ES2024AECOMAU0012 (ES24AECOMAU0012 V3)
C-O-C number	: 79233	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Private		
Sampler	: [redacted]		

Dates

Date Samples Received	: 19-Feb-2025 16:50	Issue Date	: 20-Feb-2025
Client Requested Due Date	: 26-Feb-2025	Scheduled Reporting Date	: **26-Feb-2025**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 1.4 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 4 / 4

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2504727-001	18-Feb-2025 11:59	0356_SD052_250218	✓	✓
ES2504727-002	18-Feb-2025 12:19	0356_SD080_250218	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2504727-003	18-Feb-2025 12:07	0356_SW035_250218	✓
ES2504727-004	18-Feb-2025 12:27	0356_SW036_250218	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	[redacted]
[redacted]		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
[redacted]		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

NATASHA BLEFARI

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

PETER DEAN

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: 79233 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_SD052_250218		18/02/2025 11:59 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
002	0356_SD080_250218		18/02/2025 12:19 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
003	0356_SW035_250218		18/02/2025 12:07 PM	WATER	ALS: 4 Non ALS: 0	No		X		
004	0356_SW036_250218		18/02/2025 12:27 PM	WATER	ALS: 4 Non ALS: 0	No		X		

Environmental Division Sydney

Work Order Reference

ES2504727

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

COC#: 79233 *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] 20121251940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

PROJECT MANAGER [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_SD052_250218	HDPE Soil Jar	200 mL	00620724014563	Grey	No	
002	0356_SD080_250218	HDPE Soil Jar	200 mL	00620724014556	Grey	No	
003	0356_SW035_250218	HDPE (no PTFE)	20 mL	00352309010646	Grey	No	
003	0356_SW035_250218	HDPE (no PTFE)	20 mL	00352309011091	Grey	No	
003	0356_SW035_250218	HDPE (no PTFE)	20 mL	00352309010892	Grey	No	
003	0356_SW035_250218	HDPE (no PTFE)	20 mL	00352309010701	Grey	No	
004	0356_SW036_250218	HDPE (no PTFE)	20 mL	00350822025944	Grey	No	
004	0356_SW036_250218	HDPE (no PTFE)	20 mL	00352312060418	Grey	No	
004	0356_SW036_250218	HDPE (no PTFE)	20 mL	00350822025623	Grey	No	
004	0356_SW036_250218	HDPE (no PTFE)	20 mL	00352312060379	Grey	No	

Total Bottle Count: ALS: 10, Non ALS: 0

ALSCompass SAMPLING *Intelligence*

ES2504727

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: 60739111 Client: AECOM Project Manager: [redacted]

Phone:

ALS Compass COC Reference: 79233 # Samples: 4 Sampler:

Phone:

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	(N/A)
	(Free ice) / frozen ice bricks upon receipt?	(YES)	NO	N/A
	Random sample temperature on receipt?	1.4	°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]			
Date / Time: 19/2 4:50	Date / Time: 19/02/25 16:50	Date / Time: 20/02/25 17:00	Date / Time: 20/2/25 1940

LAB OF ORIGIN: NEWCASTLE

E-MAILED

CERTIFICATE OF ANALYSIS

Work Order	: **ES2504728**	Page	: 1 of 9
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025 16:50
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79234	Issue Date	: 26-Feb-2025 14:39
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:11	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-001	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**32.8**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0041**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg		<0.0005	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:11	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0041**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0041**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0041**	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:11	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**95.7**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.0002	%		**102**	**----**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:15	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-002	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:15	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-002	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW039_250218	----	----	----	----
				Sampling date / time	18-Feb-2025 11:15	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504728-002	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**105**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**114**	**----**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2504728**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79234	Issue Date	: 26-Feb-2025
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
[redacted]	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6391920)									
EN2502882-001	Anonymous	EA055: Moisture Content	----	0.1	%	37.4	39.9	6.3	0% - 20%
ES2504729-002	Anonymous	EA055: Moisture Content	----	0.1	%	18.9	18.0	4.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0009	13.1	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0041	0.0042	0.0	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424) - continued									
ES2504727-001	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424) - continued									
ES2504738-009	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.18	13.9	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495) - continued									
ES2504738-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495) - continued									
ES2504727-003	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	0.01	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.33	0.36	8.7	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.3	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	104	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	83.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.0	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.5	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	61.0	139

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	113	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	88.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	91.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	93.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	108	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.1	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	106	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.1	66.0	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.9	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	116	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.00125 mg/kg	90.1	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	108	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	99.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	113	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	86.8	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.00125 mg/kg	118	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	110	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	104	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	103	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	106	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	115	69.0	135

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424) - continued							
ES2504727-001	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	110	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.3	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.8	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	88.4	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	102	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	93.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	118	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	116	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	108	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	95.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	87.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	111	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	93.3	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	109	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	88.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495) - continued							
ES2504729-008	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	91.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	106	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	105	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	92.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	104	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.3	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2504728**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Site	: Private	Issue Date	: 26-Feb-2025
Sampler	: [redacted]	No. of samples received	: 2
Order number	: 60739111_2.9.1	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD039_250218	**18-Feb-2025**	**----**	----	----	**21-Feb-2025**	04-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_SW039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_SW039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_SW039_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2504728**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0356_PFASOMP_25	Page	: 1 of 3
Order number	: 60739111_2.9.1	Quote number	: ES2024AECOMAU0012 (ES24AECOMAU0012 V3)
C-O-C number	: 79234	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Private		
Sampler	: [redacted]		

Dates

Date Samples Received	: 19-Feb-2025 16:50	Issue Date	: 20-Feb-2025
Client Requested Due Date	: 26-Feb-2025	Scheduled Reporting Date	: **26-Feb-2025**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 1.4 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2504728-001	18-Feb-2025 11:11	0356_SD039_250218	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2504728-002	18-Feb-2025 11:15	0356_SW039_250218	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT) — Email [redacted]
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

NATASHA BLEFARI

- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

PETER DEAN

- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

CHAIN OF CUSTODY

COC#: 79234 *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 14 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_SD039_250218		18/02/2025 11:11 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
002	0356_SW039_250218		18/02/2025 11:15 AM	WATER	ALS: 4 Non ALS: 0	No		X		

Environmental Division Sydney

Work Order Reference

ES2504728

elephone : + 61-2-8784 8555

CHAIN OF CUSTODY

COC#: 79234 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free Ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_SD039_250218	HDPE Soil Jar	200 mL	00620724014635	Grey	No	
002	0356_SW039_250218	HDPE (no PTFE)	20 mL	00352309010884	Grey	No	
002	0356_SW039_250218	HDPE (no PTFE)	20 mL	00350621036436	Grey	No	
002	0356_SW039_250218	HDPE (no PTFE)	20 mL	00352309010988	Grey	No	
002	0356_SW039_250218	HDPE (no PTFE)	20 mL	00350621036465	Grey	No	

Total Bottle Count: ALS: 5, Non ALS: 0

ALSCompass SAMPLING Intelligence

ES2504728

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: 60739111 Client: AECOM Project Manager: [redacted]

Phone:

ALS Compass COC Reference: 79234 # Samples: 2 Sampler:

Phone:

Turnaround Requirements: (Standard) _____ Urgent _____

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	(N/A)
	(Free ice) / frozen ice bricks upon receipt?	(YES)	NO	N/A
	Random sample temperature on receipt?	(-4	°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]			
Date / Time: 19/2 4:50	Date / Time: 19/02/25 16:50	Date / Time: 20/02/25 17:00	Date / Time: 20/2/25 1940

LAB OF ORIGIN: NEWCASTLE

E-MAILED

CERTIFICATE OF ANALYSIS

Work Order	: **ES2504729**	Page	: 1 of 12
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025 16:50
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79232	Issue Date	: 26-Feb-2025 14:38
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: PFAS results for sample ES2504729#001 and #007 confirmed by re-extraction and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD046_250219	0356_SD047_250219	0356_SD539_250219	0356_SD563_250219	----
				Sampling date / time	19-Feb-2025 11:39	19-Feb-2025 10:14	19-Feb-2025 11:58	19-Feb-2025 10:51	----
Compound	CAS Number	LOR	Unit		ES2504729-002	ES2504729-003	ES2504729-004	ES2504729-005	--------
					Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**18.9**	**11.9**	**31.2**	**29.1**	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0029**	**0.0003**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0024**	**0.0004**	**0.0140**	**0.0241**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0002**	----
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0002**	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0006**	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0004**	**0.0002**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0015**	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD046_250219	0356_SD047_250219	0356_SD539_250219	0356_SD563_250219	----
				Sampling date / time	19-Feb-2025 11:39	19-Feb-2025 10:14	19-Feb-2025 11:58	19-Feb-2025 10:51	----
Compound	CAS Number	LOR	Unit		ES2504729-002	ES2504729-003	ES2504729-004	ES2504729-005	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0024**	**0.0004**	**0.0181**	**0.0263**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0024**	**0.0004**	**0.0169**	**0.0244**	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0024**	**0.0004**	**0.0179**	**0.0246**	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD046_250219	0356_SD047_250219	0356_SD539_250219	0356_SD563_250219	----
				Sampling date / time	19-Feb-2025 11:39	19-Feb-2025 10:14	19-Feb-2025 11:58	19-Feb-2025 10:51	----
Compound	CAS Number	LOR	Unit		ES2504729-002	ES2504729-003	ES2504729-004	ES2504729-005	--------
					Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**107**	**108**	**104**	**106**	**----**
13C8-PFOA	----	0.0002	%		**108**	**113**	**106**	**113**	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW064_250219	0356_SW065_250219	0356_SW553_250219	0356_SW563_250219	----
				Sampling date / time	19-Feb-2025 11:47	19-Feb-2025 10:21	19-Feb-2025 12:04	19-Feb-2025 10:55	----
Compound	CAS Number	LOR	Unit		ES2504729-006	ES2504729-007	ES2504729-008	ES2504729-009	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	**0.01**	**0.03**	**0.02**	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW064_250219	0356_SW065_250219	0356_SW553_250219	0356_SW563_250219	----
				Sampling date / time	19-Feb-2025 11:47	19-Feb-2025 10:21	19-Feb-2025 12:04	19-Feb-2025 10:55	----
Compound	CAS Number	LOR	Unit		ES2504729-006	ES2504729-007	ES2504729-008	ES2504729-009	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.06**	**0.01**	**0.03**	**0.02**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	**0.01**	**0.03**	**0.02**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	**0.01**	**0.03**	**0.02**	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW064_250219	0356_SW065_250219	0356_SW553_250219	0356_SW563_250219	----
				Sampling date / time	19-Feb-2025 11:47	19-Feb-2025 10:21	19-Feb-2025 12:04	19-Feb-2025 10:55	----
Compound	CAS Number	LOR	Unit		ES2504729-006	ES2504729-007	ES2504729-008	ES2504729-009	--------
					Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**102**	**101**	**111**	**----**
13C8-PFOA	----	0.02	%		**118**	**113**	**113**	**110**	**----**

Analytical Results

Sub-Matrix: WASTEWATER (Matrix: WATER)				Sample ID	0356_OTH006_250219	----	----	----	----
				Sampling date / time	19-Feb-2025 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504729-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WASTEWATER (Matrix: WATER)				Sample ID	0356_OTH006_250219	----	----	----	----
				Sampling date / time	19-Feb-2025 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504729-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WASTEWATER (Matrix: WATER)				Sample ID	0356_OTH006_250219	----	----	----	----
				Sampling date / time	19-Feb-2025 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2504729-001	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**104**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**115**	**----**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WASTEWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2504729**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79232	Issue Date	: 26-Feb-2025
Sampler	: [redacted]		
Site	: Private		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
[redacted]	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6391920)									
EN2502882-001	Anonymous	EA055: Moisture Content	----	0.1	%	37.4	39.9	6.3	0% - 20%
ES2504729-002	0356_SD046_250219	EA055: Moisture Content	----	0.1	%	18.9	18.0	4.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0009	13.1	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0041	0.0042	0.0	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424) - continued									
ES2504727-001	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424) - continued									
ES2504738-009	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.18	13.9	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495) - continued									
ES2504738-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495) - continued									
ES2504727-003	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	0.01	0.0	No Limit
ES2504738-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.33	0.36	8.7	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.3	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	104	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	83.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.0	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.5	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	61.0	139

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	113	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	88.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	91.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	93.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	108	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.1	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	106	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.1	66.0	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.9	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	116	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.00125 mg/kg	90.1	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	108	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	99.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	113	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	86.8	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.00125 mg/kg	118	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	110	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	104	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	103	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	106	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	115	69.0	135

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424) - continued							
ES2504727-001	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	110	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.3	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.8	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	88.4	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	102	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	93.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	118	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	116	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	0356_SW553_250219	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	108	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	95.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	87.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	111	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	93.3	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	109	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	88.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)							
ES2504729-008	0356_SW553_250219	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495) - continued							
ES2504729-008	0356_SW553_250219	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	91.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	106	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	105	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)							
ES2504729-008	0356_SW553_250219	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	92.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	104	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.3	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	0356_SW553_250219	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.6	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2504729**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Site	: Private	Issue Date	: 26-Feb-2025
Sampler	: [redacted]	No. of samples received	: 9
Order number	: 60739111_2.9.1	No. of samples analysed	: 9

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**----**	----	----	**21-Feb-2025**	05-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0356_SD046_250219, 0356_SD047_250219, 0356_SD539_250219, 0356_SD563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_250219, 0356_SW064_250219, 0356_SW065_250219, 0356_SW553_250219, 0356_SW563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_250219, 0356_SW064_250219, 0356_SW065_250219, 0356_SW553_250219, 0356_SW563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0356_OTH006_250219, 0356_SW064_250219, 0356_SW065_250219, 0356_SW553_250219, 0356_SW563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0356_OTH006_250219, 0356_SW064_250219, 0356_SW065_250219, 0356_SW553_250219, 0356_SW563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0356_OTH006_250219, 0356_SW064_250219, 0356_SW065_250219, 0356_SW553_250219, 0356_SW563_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2504729**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0356_PFASOMP_25	Page	: 1 of 3
Order number	: 60739111_2.9.1	Quote number	: ES2024AECOMAU0012 (ES24AECOMAU0012 V3)
C-O-C number	: 79232	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Private		
Sampler	: [redacted]		

Dates

Date Samples Received	: 19-Feb-2025 16:50	Issue Date	: 20-Feb-2025
Client Requested Due Date	: 26-Feb-2025	Scheduled Reporting Date	: **26-Feb-2025**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 1.4 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 9 / 9

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2504729-002	19-Feb-2025 11:39	0356_SD046_250219	✓	✓
ES2504729-003	19-Feb-2025 10:14	0356_SD047_250219	✓	✓
ES2504729-004	19-Feb-2025 11:58	0356_SD539_250219	✓	✓
ES2504729-005	19-Feb-2025 10:51	0356_SD563_250219	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2504729-001	19-Feb-2025 12:43	0356_OTH006_250219	✓
ES2504729-006	19-Feb-2025 11:47	0356_SW064_250219	✓
ES2504729-007	19-Feb-2025 10:21	0356_SW065_250219	✓
ES2504729-008	19-Feb-2025 12:04	0356_SW553_250219	✓
ES2504729-009	19-Feb-2025 10:55	0356_SW563_250219	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	[redacted]

GEMCO RESULTS

- *AU Certificate of Analysis - NATA (COA)	Email	environmentaldata@south32.net
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	environmentaldata@south32.net
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	environmentaldata@south32.net
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	environmentaldata@south32.net
- Chain of Custody (CoC) (COC)	Email	environmentaldata@south32.net
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	environmentaldata@south32.net
- EDI Format - ESDAT (ESDAT)	Email	environmentaldata@south32.net

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

NATASHA BLEFARI

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

PETER DEAN

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: 79232 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20 12 25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 14 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_OTH006_250219		19/02/2025 12:43 PM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0356_SD046_250219		19/02/2025 11:39 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
003	0356_SD047_250219		19/02/2025 10:14 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
004	0356_SD539_250219		19/02/2025 11:58 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
005	0356_SD563_250219		19/02/2025 10:51 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
006	0356_SW064_250219		19/02/2025 11:47 AM	WATER	ALS: 4 Non ALS: 0	No		X		
007	0356_SW065_250219		19/02/2025 10:21 AM	WATER	ALS: 4 Non ALS: 0	No		X		

Environmental Division Sydney

Work Order Reference

ES2504729

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

COC#: 79232 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 1.4

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0356_SW553_250219		19/02/2025 12:04 PM	WATER	ALS: 4 Non ALS: 0	No		X		
009	0356_SW563_250219		19/02/2025 10:55 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 79232 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY: [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: Private

ORDER NO: 60739111_2.9.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 14

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_OTH006_250219	HDPE (no PTFE)	20 mL	00352312060212	Grey	No	
001	0356_OTH006_250219	HDPE (no PTFE)	20 mL	00350822025808	Grey	No	
001	0356_OTH006_250219	HDPE (no PTFE)	20 mL	00350822025981	Grey	No	
001	0356_OTH006_250219	HDPE (no PTFE)	20 mL	00352312060417	Grey	No	
002	0356_SD046_250219	HDPE Soil Jar	200 mL	00620724014644	Grey	No	
003	0356_SD047_250219	HDPE Soil Jar	200 mL	00620724014594	Grey	No	
004	0356_SD539_250219	HDPE Soil Jar	200 mL	00620724014588	Grey	No	
005	0356_SD563_250219	HDPE Soil Jar	200 mL	00620724014676	Grey	No	
006	0356_SW064_250219	HDPE (no PTFE)	20 mL	00352312060303	Grey	No	
006	0356_SW064_250219	HDPE (no PTFE)	20 mL	00350522049628	Grey	No	
006	0356_SW064_250219	HDPE (no PTFE)	20 mL	00352312060302	Grey	No	
006	0356_SW064_250219	HDPE (no PTFE)	20 mL	00350522049549	Grey	No	
007	0356_SW065_250219	HDPE (no PTFE)	20 mL	00352312060193	Grey	No	
007	0356_SW065_250219	HDPE (no PTFE)	20 mL	00352309010948	Grey	No	
007	0356_SW065_250219	HDPE (no PTFE)	20 mL	00352309010816	Grey	No	
007	0356_SW065_250219	HDPE (no PTFE)	20 mL	00352312060253	Grey	No	
008	0356_SW553_250219	HDPE (no PTFE)	20 mL	00352309010822	Grey	No	
008	0356_SW553_250219	HDPE (no PTFE)	20 mL	00352312060344	Grey	No	
008	0356_SW553_250219	HDPE (no PTFE)	20 mL	00352312060475	Grey	No	
008	0356_SW553_250219	HDPE (no PTFE)	20 mL	00352309010670	Grey	No	
009	0356_SW563_250219	HDPE (no PTFE)	20 mL	00352309010522	Grey	No	
009	0356_SW563_250219	HDPE (no PTFE)	20 mL	00352309010726	Grey	No	
009	0356_SW563_250219	HDPE (no PTFE)	20 mL	00352312060194	Grey	No	
009	0356_SW563_250219	HDPE (no PTFE)	20 mL	00352312060186	Grey	No	

Total Bottle Count: ALS: 24, Non ALS: 0

Environmental Division
Sydney
Work Order Reference
ES2504729

Telephone : +61-2-8784 8555

ALSCompass SAMPLING Intelligence

Custody Document for Submissions via ALS Compass App

Project: 60739111 Client: AECOM Project Manager: [redacted]
Phone:

ALS Compass COC Reference: 79232 # Samples: 9 Sampler:
Phone:

Turnaround Requirements: Standard _____ Urgent _____

Special Instructions:	ALS Use Only
	Custody seal intact? YES NO (N/A)
	(Free ice) / frozen ice bricks upon receipt? (YES) NO N/A
	Random sample temperature on receipt? 1.4 °C

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]			
Date / Time: 19/2 4:50	Date / Time: 19/02/25 16:50	Date / Time: 20/02/25 17:00	Date / Time: 20/2/25 1940

LAB OF ORIGIN: NEWCASTLE

E-MAILED

CERTIFICATE OF ANALYSIS

Work Order	: **ES2504738**	Page	: 1 of 24
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025 16:50
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79231	Issue Date	: 26-Feb-2025 14:50
Sampler	: [redacted]		
Site	: SMA		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 28		
No. of samples analysed	: 28		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW102_250218	0356_MW109_250218	0356_MW110_250218	0356_QC102_250218	----
				Sampling date / time	18-Feb-2025 09:24	18-Feb-2025 09:57	18-Feb-2025 10:07	18-Feb-2025 09:24	----
Compound	CAS Number	LOR	Unit		ES2504738-001	ES2504738-002	ES2504738-003	ES2504738-006	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.16**	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.11**	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW102_250218	0356_MW109_250218	0356_MW110_250218	0356_QC102_250218	----
				Sampling date / time	18-Feb-2025 09:24	18-Feb-2025 09:57	18-Feb-2025 10:07	18-Feb-2025 09:24	----
Compound	CAS Number	LOR	Unit		ES2504738-001	ES2504738-002	ES2504738-003	ES2504738-006	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.33**	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.27**	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.33**	<0.01	<0.01	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0356_MW102_250218	0356_MW109_250218	0356_MW110_250218	0356_QC102_250218	----
				Sampling date / time	18-Feb-2025 09:24	18-Feb-2025 09:57	18-Feb-2025 10:07	18-Feb-2025 09:24	----
Compound	CAS Number	LOR	Unit		ES2504738-001	ES2504738-002	ES2504738-003	ES2504738-006	--------
					Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**104**	**107**	**106**	**111**	**----**
13C8-PFOA	----	0.02	%		**111**	**109**	**110**	**103**	**----**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0356_QC300_250217	0356_QC301_250218	0356_QC302_250219	----	----
				Sampling date / time	17-Feb-2025 17:45	18-Feb-2025 17:30	19-Feb-2025 14:00	----	----
Compound	CAS Number	LOR	Unit		ES2504738-026	ES2504738-027	ES2504738-028	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0356_QC300_250217	0356_QC301_250218	0356_QC302_250219	----	----
				Sampling date / time	17-Feb-2025 17:45	18-Feb-2025 17:30	19-Feb-2025 14:00	----	----
Compound	CAS Number	LOR	Unit		ES2504738-026	ES2504738-027	ES2504738-028	--------	--------
					Result	Result	Result	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0356_QC300_250217	0356_QC301_250218	0356_QC302_250219	----	----
				Sampling date / time	17-Feb-2025 17:45	18-Feb-2025 17:30	19-Feb-2025 14:00	----	----
Compound	CAS Number	LOR	Unit		ES2504738-026	ES2504738-027	ES2504738-028	--------	--------
					Result	Result	Result	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**108**	**97.0**	**97.4**	**----**	**----**
13C8-PFOA	----	0.02	%		**111**	**106**	**107**	**----**	**----**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_QC100_250217	0356_QC103_250219	0356_SD002_250217	0356_SD003_250218	0356_SD004_250219
				Sampling date / time	17-Feb-2025 11:21	19-Feb-2025 09:14	17-Feb-2025 11:45	18-Feb-2025 13:32	19-Feb-2025 09:14
Compound	CAS Number	LOR	Unit		ES2504738-004	ES2504738-007	ES2504738-008	ES2504738-009	ES2504738-010
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**19.6**	**31.8**	**26.4**	**50.3**	**31.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0002**	<0.0002	**0.0006**	**0.0004**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0036**	<0.0002	**0.0045**	**0.0041**	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_QC100_250217	0356_QC103_250219	0356_SD002_250217	0356_SD003_250218	0356_SD004_250219
				Sampling date / time	17-Feb-2025 11:21	19-Feb-2025 09:14	17-Feb-2025 11:45	18-Feb-2025 13:32	19-Feb-2025 09:14
Compound	CAS Number	LOR	Unit		ES2504738-004	ES2504738-007	ES2504738-008	ES2504738-009	ES2504738-010
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0038**	<0.0002	**0.0051**	**0.0045**	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0038**	<0.0002	**0.0051**	**0.0045**	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0038**	<0.0002	**0.0051**	**0.0045**	<0.0002
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_QC100_250217	0356_QC103_250219	0356_SD002_250217	0356_SD003_250218	0356_SD004_250219
				Sampling date / time	17-Feb-2025 11:21	19-Feb-2025 09:14	17-Feb-2025 11:45	18-Feb-2025 13:32	19-Feb-2025 09:14
Compound	CAS Number	LOR	Unit		ES2504738-004	ES2504738-007	ES2504738-008	ES2504738-009	ES2504738-010
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**109**	**91.3**	**108**	**87.6**	**99.6**
13C8-PFOA	----	0.0002	%		**107**	**108**	**112**	**109**	**112**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD005_250219	0356_SD032_250217	0356_SD040_250217	0356_SD053_250217	0356_SD055_250217
				Sampling date / time	19-Feb-2025 09:25	17-Feb-2025 13:07	17-Feb-2025 14:18	17-Feb-2025 12:37	17-Feb-2025 13:41
Compound	CAS Number	LOR	Unit		ES2504738-011	ES2504738-012	ES2504738-013	ES2504738-014	ES2504738-015
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**27.9**	**51.5**	**39.1**	**25.6**	**53.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	**0.0013**	<0.0002	**0.0013**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0008**	**0.0266**	**0.0005**	**0.0264**	**0.0039**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	**0.0004**	<0.0002	<0.0002	**0.0014**
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	**0.0008**	<0.0002	**0.0005**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0002**	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD005_250219	0356_SD032_250217	0356_SD040_250217	0356_SD053_250217	0356_SD055_250217
				Sampling date / time	19-Feb-2025 09:25	17-Feb-2025 13:07	17-Feb-2025 14:18	17-Feb-2025 12:37	17-Feb-2025 13:41
Compound	CAS Number	LOR	Unit		ES2504738-011	ES2504738-012	ES2504738-013	ES2504738-014	ES2504738-015
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0008**	**0.0288**	**0.0005**	**0.0279**	**0.0055**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0008**	**0.0279**	**0.0005**	**0.0277**	**0.0039**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0008**	**0.0279**	**0.0005**	**0.0279**	**0.0039**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD005_250219	0356_SD032_250217	0356_SD040_250217	0356_SD053_250217	0356_SD055_250217
				Sampling date / time	19-Feb-2025 09:25	17-Feb-2025 13:07	17-Feb-2025 14:18	17-Feb-2025 12:37	17-Feb-2025 13:41
Compound	CAS Number	LOR	Unit		ES2504738-011	ES2504738-012	ES2504738-013	ES2504738-014	ES2504738-015
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**104**	**99.3**	**106**	**101**	**106**
13C8-PFOA	----	0.0002	%		**112**	**107**	**109**	**108**	**104**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD065_250217	0356_SD115_250217	0356_SD116_250218	----	----
				Sampling date / time	17-Feb-2025 14:35	17-Feb-2025 11:21	18-Feb-2025 13:46	----	----
Compound	CAS Number	LOR	Unit		ES2504738-016	ES2504738-017	ES2504738-018	--------	--------
					Result	Result	Result	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**30.7**	**17.6**	**21.1**	**----**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0011**	**0.0003**	**0.0003**	**----**	**----**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0107**	**0.0026**	**0.0041**	**----**	**----**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**----**	**----**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		**0.0002**	<0.0002	<0.0002	**----**	**----**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	**----**	**----**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**----**	**----**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD065_250217	0356_SD115_250217	0356_SD116_250218	----	----
				Sampling date / time	17-Feb-2025 14:35	17-Feb-2025 11:21	18-Feb-2025 13:46	----	----
Compound	CAS Number	LOR	Unit		ES2504738-016	ES2504738-017	ES2504738-018	--------	--------
					Result	Result	Result	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0118**	**0.0029**	**0.0044**	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0118**	**0.0029**	**0.0044**	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0118**	**0.0029**	**0.0044**	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0356_SD065_250217	0356_SD115_250217	0356_SD116_250218	----	----
				Sampling date / time	17-Feb-2025 14:35	17-Feb-2025 11:21	18-Feb-2025 13:46	----	----
Compound	CAS Number	LOR	Unit		ES2504738-016	ES2504738-017	ES2504738-018	--------	--------
					Result	Result	Result	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.0002	%		**109**	**104**	**97.6**	**----**	**----**
13C8-PFOA	----	0.0002	%		**110**	**111**	**110**	**----**	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_QC101_250217	0356_SW002_250217	0356_SW003_250218	0356_SW026_250217	0356_SW028_250217
				Sampling date / time	17-Feb-2025 11:38	17-Feb-2025 11:38	18-Feb-2025 13:40	17-Feb-2025 12:22	17-Feb-2025 13:49
Compound	CAS Number	LOR	Unit		ES2504738-005	ES2504738-019	ES2504738-020	ES2504738-021	ES2504738-022
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	**0.02**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.02**	**0.03**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.55**	**0.62**	**0.02**	**0.18**	**0.01**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.05**	**0.04**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.80**	**0.68**	**0.03**	**0.28**	**0.02**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	**0.06**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	**0.03**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_QC101_250217	0356_SW002_250217	0356_SW003_250218	0356_SW026_250217	0356_SW028_250217
				Sampling date / time	17-Feb-2025 11:38	17-Feb-2025 11:38	18-Feb-2025 13:40	17-Feb-2025 12:22	17-Feb-2025 13:49
Compound	CAS Number	LOR	Unit		ES2504738-005	ES2504738-019	ES2504738-020	ES2504738-021	ES2504738-022
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.52**	**1.48**	**0.05**	**0.46**	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.35**	**1.30**	**0.05**	**0.46**	**0.03**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.45**	**1.41**	**0.05**	**0.46**	**0.03**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_QC101_250217	0356_SW002_250217	0356_SW003_250218	0356_SW026_250217	0356_SW028_250217
				Sampling date / time	17-Feb-2025 11:38	17-Feb-2025 11:38	18-Feb-2025 13:40	17-Feb-2025 12:22	17-Feb-2025 13:49
Compound	CAS Number	LOR	Unit		ES2504738-005	ES2504738-019	ES2504738-020	ES2504738-021	ES2504738-022
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**107**	**110**	**101**	**108**	**105**
13C8-PFOA	----	0.02	%		**110**	**106**	**103**	**105**	**106**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW032_250217	0356_SW034_250217	0356_SW040_250217	----	----
				Sampling date / time	17-Feb-2025 13:12	17-Feb-2025 14:43	17-Feb-2025 14:03	----	----
Compound	CAS Number	LOR	Unit		ES2504738-023	ES2504738-024	ES2504738-025	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.26**	**0.20**	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.54**	**0.39**	<0.01	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW032_250217	0356_SW034_250217	0356_SW040_250217	----	----
				Sampling date / time	17-Feb-2025 13:12	17-Feb-2025 14:43	17-Feb-2025 14:03	----	----
Compound	CAS Number	LOR	Unit		ES2504738-023	ES2504738-024	ES2504738-025	--------	--------
					Result	Result	Result	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.83**	**0.59**	<0.01	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.80**	**0.59**	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.83**	**0.59**	<0.01	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0356_SW032_250217	0356_SW034_250217	0356_SW040_250217	----	----
				Sampling date / time	17-Feb-2025 13:12	17-Feb-2025 14:43	17-Feb-2025 14:03	----	----
Compound	CAS Number	LOR	Unit		ES2504738-023	ES2504738-024	ES2504738-025	--------	--------
					Result	Result	Result	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**107**	**104**	**104**	**----**	**----**
13C8-PFOA	----	0.02	%		**100**	**105**	**106**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2504738**	Page	: 1 of 16
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Order number	: 60739111_2.9.1	Date Analysis Commenced	: 21-Feb-2025
C-O-C number	: 79231	Issue Date	: 26-Feb-2025
Sampler	: [redacted]		
Site	: SMA		
Quote number	: ES24AECOMAU0012 V3		
No. of samples received	: 28		
No. of samples analysed	: 28		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
[redacted]	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
[redacted]	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6391920)									
EN2502882-001	Anonymous	EA055: Moisture Content	----	0.1	%	37.4	39.9	6.3	0% - 20%
ES2504729-002	Anonymous	EA055: Moisture Content	----	0.1	%	18.9	18.0	4.5	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6391921)									
ES2504738-014	0356_SD053_250217	EA055: Moisture Content	----	0.1	%	25.6	27.1	5.8	0% - 20%
ES2504907-006	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	12.4	7.8	45.0	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0009	13.1	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	0356_SD003_250218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0041	0.0042	0.0	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392424) - continued									
ES2504738-009	0356_SD003_250218	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2504738-009	0356_SD003_250218	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392424) - continued									
ES2504727-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	0356_SD003_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392424)									
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2504738-009	0356_SD003_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392495) - continued									
ES2504727-003	Anonymous	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2504738-002	0356_MW109_250218	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.18	13.9	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6392496)									
ES2504738-006	0356_QC102_250218	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2504738-026	0356_QC300_250217	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392495) - continued									
ES2504727-003	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2504738-002	0356_MW109_250218	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392496)									
ES2504738-006	0356_QC102_250218	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2504738-026	0356_QC300_250217	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6392496) - continued									
ES2504738-026	0356_QC300_250217	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	0356_MW109_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392496)									
ES2504738-006	0356_QC102_250218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6392496) - continued									
ES2504738-006	0356_QC102_250218	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-026	0356_QC300_250217	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-002	0356_MW109_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392496)									
ES2504738-006	0356_QC102_250218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6392496) - continued									
ES2504738-006	0356_QC102_250218	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2504738-026	0356_QC300_250217	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6392495)									
ES2504727-003	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	0.01	0.0	No Limit
ES2504738-002	0356_MW109_250218	EP231X: Sum of PFAS	----	0.01	µg/L	0.33	0.36	8.7	0% - 20%
EP231P: PFAS Sums (QC Lot: 6392496)									
ES2504738-006	0356_QC102_250218	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2504738-026	0356_QC300_250217	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.3	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	104	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	83.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.0	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.5	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	61.0	139

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	113	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	88.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	91.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	93.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	108	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392496)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	91.9	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	77.3	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	81.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	75.7	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	85.3	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	98.3	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	83.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.1	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	106	62.9	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392496)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	86.9	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	86.3	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	90.9	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	90.3	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	77.5	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.9	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	80.9	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	96.2	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.1	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.9	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	100	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392496)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	84.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	92.5	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	85.4	66.0	145

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392496) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	87.6	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	91.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	88.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	116	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392496)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	85.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	98.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	112	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	83.0	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.00125 mg/kg	90.1	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	108	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	99.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	113	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	86.8	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.00125 mg/kg	118	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	110	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	104	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	103	70.0	132

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392424) - continued							
ES2504727-001	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	106	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	115	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	110	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.3	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.8	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	88.4	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	102	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392424)							
ES2504727-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	93.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	118	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	116	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	108	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	95.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	87.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	111	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	93.3	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	109	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	88.7	53.0	142

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6392496)							
ES2504738-022	0356_SW028_250217	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	93.1	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	77.8	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	86.3	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	82.9	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	90.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	82.6	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	86.7	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	79.9	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	98.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	91.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	106	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	105	62.9	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6392496)							
ES2504738-022	0356_SW028_250217	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	85.8	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	85.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	84.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	80.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	91.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	87.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	83.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	93.1	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	107	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	91.4	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	92.1	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	92.6	68.0	141

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392495) - continued							
ES2504729-008	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	104	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.3	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6392496)							
ES2504738-022	0356_SW028_250217	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	92.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	98.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	100	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	80.1	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	89.3	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	84.3	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	77.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392495)							
ES2504729-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6392496)							
ES2504738-022	0356_SW028_250217	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	71.7	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	88.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	86.7	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	75.4	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2504738**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0356_PFASOMP_25	Date Samples Received	: 19-Feb-2025
Site	: SMA	Issue Date	: 26-Feb-2025
Sampler	: [redacted]	No. of samples received	: 28
Order number	: 60739111_2.9.1	No. of samples analysed	: 28

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**----**	----	----	**21-Feb-2025**	03-Mar-2025	✓
HDPE Soil Jar (EA055) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**----**	----	----	**21-Feb-2025**	04-Mar-2025	✓
HDPE Soil Jar (EA055) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**----**	----	----	**21-Feb-2025**	05-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0356_QC100_250217, 0356_SD002_250217, 0356_SD032_250217, 0356_SD040_250217, 0356_SD053_250217, 0356_SD055_250217, 0356_SD065_250217, 0356_SD115_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_SD003_250218, 0356_SD116_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓
HDPE Soil Jar (EP231X) 0356_QC103_250219, 0356_SD004_250219, 0356_SD005_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**26-Feb-2025**	02-Apr-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0356_QC101_250217, 0356_SW002_250217, 0356_SW026_250217, 0356_SW028_250217, 0356_SW032_250217, 0356_SW034_250217, 0356_SW040_250217, 0356_QC300_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**25-Feb-2025**	16-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_MW102_250218, 0356_MW109_250218, 0356_MW110_250218, 0356_QC102_250218, 0356_SW003_250218, 0356_QC301_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_QC302_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0356_QC101_250217, 0356_SW002_250217, 0356_SW026_250217, 0356_SW028_250217, 0356_SW032_250217, 0356_SW034_250217, 0356_SW040_250217, 0356_QC300_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**25-Feb-2025**	16-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_MW102_250218, 0356_MW109_250218, 0356_MW110_250218, 0356_QC102_250218, 0356_SW003_250218, 0356_QC301_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_QC302_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0356_QC101_250217, 0356_SW002_250217, 0356_SW026_250217, 0356_SW028_250217, 0356_SW032_250217, 0356_SW034_250217, 0356_SW040_250217, 0356_QC300_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**25-Feb-2025**	16-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_MW102_250218, 0356_MW109_250218, 0356_MW110_250218, 0356_QC102_250218, 0356_SW003_250218, 0356_QC301_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_QC302_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0356_QC101_250217, 0356_SW002_250217, 0356_SW026_250217, 0356_SW028_250217, 0356_SW032_250217, 0356_SW034_250217, 0356_SW040_250217, 0356_QC300_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**25-Feb-2025**	16-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_MW102_250218, 0356_MW109_250218, 0356_MW110_250218, 0356_QC102_250218, 0356_SW003_250218, 0356_QC301_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_QC302_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0356_QC101_250217, 0356_SW002_250217, 0356_SW026_250217, 0356_SW028_250217, 0356_SW032_250217, 0356_SW034_250217, 0356_SW040_250217, 0356_QC300_250217	**17-Feb-2025**	**21-Feb-2025**	16-Aug-2025	✓	**25-Feb-2025**	16-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_MW102_250218, 0356_MW109_250218, 0356_MW110_250218, 0356_QC102_250218, 0356_SW003_250218, 0356_QC301_250218	**18-Feb-2025**	**21-Feb-2025**	17-Aug-2025	✓	**25-Feb-2025**	17-Aug-2025	✓
HDPE (no PTFE) (EP231X) 0356_QC302_250219	**19-Feb-2025**	**21-Feb-2025**	18-Aug-2025	✓	**25-Feb-2025**	18-Aug-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	27	**14.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2504738**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: 17 WARABROOK BLVD NEWCASTLE Newcastle 2304	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0356_PFASOMP_25	Page	: 1 of 4
Order number	: 60739111_2.9.1	Quote number	: ES2024AECOMAU0012 (ES24AECOMAU0012 V3)
C-O-C number	: 79231	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: SMA		
Sampler	: [redacted]		

Dates

Date Samples Received	: 19-Feb-2025 16:50	Issue Date	: 20-Feb-2025
Client Requested Due Date	: 26-Feb-2025	Scheduled Reporting Date	: **26-Feb-2025**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 1.4 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 28 / 28

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (30 analytes)
ES2504738-004	17-Feb-2025 11:21	0356_QC100_250217	✓	✓
ES2504738-007	19-Feb-2025 09:14	0356_QC103_250219	✓	✓
ES2504738-008	17-Feb-2025 11:45	0356_SD002_250217	✓	✓
ES2504738-009	18-Feb-2025 13:32	0356_SD003_250218	✓	✓
ES2504738-010	19-Feb-2025 09:14	0356_SD004_250219	✓	✓
ES2504738-011	19-Feb-2025 09:25	0356_SD005_250219	✓	✓
ES2504738-012	17-Feb-2025 13:07	0356_SD032_250217	✓	✓
ES2504738-013	17-Feb-2025 14:18	0356_SD040_250217	✓	✓
ES2504738-014	17-Feb-2025 12:37	0356_SD053_250217	✓	✓
ES2504738-015	17-Feb-2025 13:41	0356_SD055_250217	✓	✓
ES2504738-016	17-Feb-2025 14:35	0356_SD065_250217	✓	✓
ES2504738-017	17-Feb-2025 11:21	0356_SD115_250217	✓	✓
ES2504738-018	18-Feb-2025 13:46	0356_SD116_250218	✓	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (31 analytes)
ES2504738-001	18-Feb-2025 09:24	0356_MW102_250218	✓
ES2504738-002	18-Feb-2025 09:57	0356_MW109_250218	✓
ES2504738-003	18-Feb-2025 10:07	0356_MW110_250218	✓
ES2504738-005	17-Feb-2025 11:38	0356_QC101_250217	✓
ES2504738-006	18-Feb-2025 09:24	0356_QC102_250218	✓
ES2504738-019	17-Feb-2025 11:38	0356_SW002_250217	✓
ES2504738-020	18-Feb-2025 13:40	0356_SW003_250218	✓
ES2504738-021	17-Feb-2025 12:22	0356_SW026_250217	✓
ES2504738-022	17-Feb-2025 13:49	0356_SW028_250217	✓
ES2504738-023	17-Feb-2025 13:12	0356_SW032_250217	✓

			WATER - EP231X PFAS - Full Suite (31 analytes)
ES2504738-024	17-Feb-2025 14:43	0356_SW034_250217	✓
ES2504738-025	17-Feb-2025 14:03	0356_SW040_250217	✓
ES2504738-026	17-Feb-2025 17:45	0356_QC300_250217	✓
ES2504738-027	18-Feb-2025 17:30	0356_QC301_250218	✓
ES2504738-028	19-Feb-2025 14:00	0356_QC302_250219	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE
- A4 - AU Tax Invoice (INV) — Email [redacted]

DERP ESDAT REPORTS
- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

[redacted]
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

NATASHA BLEFARI
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

PETER DEAN
- *AU Certificate of Analysis - NATA (COA) — Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email [redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email [redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email [redacted]
- Chain of Custody (CoC) (COC) — Email [redacted]
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) — Email [redacted]
- EDI Format - ESDAT (ESDAT) — Email [redacted]

CHAIN OF CUSTODY

COC#: 79231 *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY: [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 2012/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU001 2

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

Environmental Division Sydney

Work Order Reference

ES2504738

Telephone : +61-2-8784 8555

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0356_MW102_250218		18/02/2025 09:24 AM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0356_MW109_250218		18/02/2025 09:57 AM	WATER	ALS: 4 Non ALS: 0	No		X		
003	0356_MW110_250218		18/02/2025 10:07 AM	WATER	ALS: 4 Non ALS: 0	No		X		
004	0356_QC100_250217		17/02/2025 11:21 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
005	0356_QC101_250217		17/02/2025 11:38 AM	WATER	ALS: 4 Non ALS: 0	No		X		
006	0356_QC102_250218		18/02/2025 09:24 AM	WATER	ALS: 4 Non ALS: 0	No		X		
007	0356_QC103_250219		19/02/2025 09:14 AM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 79231 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] DATE TIME: 20.02.25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0356_SD002_250217		17/02/2025 11:45 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
009	0356_SD003_250218		18/02/2025 01:32 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
010	0356_SD004_250219		19/02/2025 09:14 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
011	0356_SD005_250219		19/02/2025 09:25 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
012	0356_SD032_250217		17/02/2025 01:07 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
013	0356_SD040_250217		17/02/2025 02:18 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
014	0356_SD053_250217		17/02/2025 12:37 PM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 79231 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 19:40	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 14 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0356_SD055_250217		17/02/2025 01:41 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
016	0356_SD065_250217		17/02/2025 02:35 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
017	0356_SD115_250217		17/02/2025 11:21 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
018	0356_SD116_250218		18/02/2025 01:46 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
019	0356_SW002_250217		17/02/2025 11:38 AM	WATER	ALS: 4 Non ALS: 0	No		X		
020	0356_SW003_250218		18/02/2025 01:40 PM	WATER	ALS: 4 Non ALS: 0	No		X		
021	0356_SW026_250217		17/02/2025 12:22 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 79231 *ALS Laboratory:* ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	[redacted] 20/2/25 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Table 2 - PFAS Full Suite Soil SOIL	Table 7 - PFAS Full Suite Water WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0356_SW028_250217		17/02/2025 01:49 PM	WATER	ALS: 4 Non ALS: 0	No		X		
023	0356_SW032_250217		17/02/2025 01:12 PM	WATER	ALS: 4 Non ALS: 0	No		X		
024	0356_SW034_250217		17/02/2025 02:43 PM	WATER	ALS: 4 Non ALS: 0	No		X		
025	0356_SW040_250217		17/02/2025 02:03 PM	WATER	ALS: 4 Non ALS: 0	No		X		
026	0356_QC300_250217		17/02/2025 05:45 PM	WATER	ALS: 4 Non ALS: 0	No		X		
027	0356_QC301_250218		18/02/2025 05:30 PM	WATER	ALS: 4 Non ALS: 0	No		X		
028	0356_QC302_250219		19/02/2025 02:00 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 79231 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 1440	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 14 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0356_MW102_250218	HDPE (no PTFE)	20 mL	00352312060291	Grey	No	
001	0356_MW102_250218	HDPE (no PTFE)	20 mL	00352312060324	Grey	No	
001	0356_MW102_250218	HDPE (no PTFE)	20 mL	00352312060463	Grey	No	
001	0356_MW102_250218	HDPE (no PTFE)	20 mL	00352312060443	Grey	No	
002	0356_MW109_250218	HDPE (no PTFE)	20 mL	00352312060470	Grey	No	
002	0356_MW109_250218	HDPE (no PTFE)	20 mL	00352312060207	Grey	No	
002	0356_MW109_250218	HDPE (no PTFE)	20 mL	00352312060198	Grey	No	
002	0356_MW109_250218	HDPE (no PTFE)	20 mL	00352312060453	Grey	No	
003	0356_MW110_250218	HDPE (no PTFE)	20 mL	00352312060353	Grey	No	
003	0356_MW110_250218	HDPE (no PTFE)	20 mL	00352312060313	Grey	No	
003	0356_MW110_250218	HDPE (no PTFE)	20 mL	00352312060444	Grey	No	
003	0356_MW110_250218	HDPE (no PTFE)	20 mL	00352312060383	Grey	No	
004	0356_QC100_250217	HDPE Soil Jar	200 mL	00620724014584	Grey	No	
005	0356_QC101_250217	HDPE (no PTFE)	20 mL	00352312060314	Grey	No	
005	0356_QC101_250217	HDPE (no PTFE)	20 mL	00352312060377	Grey	No	
005	0356_QC101_250217	HDPE (no PTFE)	20 mL	00352312060416	Grey	No	
005	0356_QC101_250217	HDPE (no PTFE)	20 mL	00352312060454	Grey	No	
006	0356_QC102_250218	HDPE (no PTFE)	20 mL	00352312060298	Grey	No	
006	0356_QC102_250218	HDPE (no PTFE)	20 mL	00352312060449	Grey	No	
006	0356_QC102_250218	HDPE (no PTFE)	20 mL	00352312060437	Grey	No	
006	0356_QC102_250218	HDPE (no PTFE)	20 mL	00352312060351	Grey	No	
007	0356_QC103_250219	HDPE Soil Jar	200 mL	00620724014630	Grey	No	
008	0356_SD002_250217	HDPE Soil Jar	200 mL	00620724014670	Grey	No	
009	0356_SD003_250218	HDPE Soil Jar	200 mL	00620724014638	Grey	No	
010	0356_SD004_250219	HDPE Soil Jar	200 mL	00620724014564	Grey	No	
011	0356_SD005_250219	HDPE Soil Jar	200 mL	00620724014580	Grey	No	

CHAIN OF CUSTODY

COC#: 79231 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/12/15 1940	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

012	0356_SD032_250217	HDPE Soil Jar	200 mL	00620724014603	Grey	No	
013	0356_SD040_250217	HDPE Soil Jar	200 mL	00620724014560	Grey	No	
014	0356_SD053_250217	HDPE Soil Jar	200 mL	00620724014629	Grey	No	
015	0356_SD055_250217	HDPE Soil Jar	200 mL	00620724014575	Grey	No	
016	0356_SD065_250217	HDPE Soil Jar	200 mL	00620724014561	Grey	No	
017	0356_SD115_250217	HDPE Soil Jar	200 mL	00620724014657	Grey	No	
018	0356_SD116_250218	HDPE Soil Jar	200 mL	00620724014613	Grey	No	
019	0356_SW002_250217	HDPE (no PTFE)	20 mL	00352312060369	Grey	No	
019	0356_SW002_250217	HDPE (no PTFE)	20 mL	00352312060274	Grey	No	
019	0356_SW002_250217	HDPE (no PTFE)	20 mL	00352312060245	Grey	No	
019	0356_SW002_250217	HDPE (no PTFE)	20 mL	00352312060230	Grey	No	
020	0356_SW003_250218	HDPE (no PTFE)	20 mL	00352312060254	Grey	No	
020	0356_SW003_250218	HDPE (no PTFE)	20 mL	00352312060246	Grey	No	
020	0356_SW003_250218	HDPE (no PTFE)	20 mL	00352312060310	Grey	No	
020	0356_SW003_250218	HDPE (no PTFE)	20 mL	00352312060442	Grey	No	
021	0356_SW026_250217	HDPE (no PTFE)	20 mL	00352312060427	Grey	No	
021	0356_SW026_250217	HDPE (no PTFE)	20 mL	00352312060182	Grey	No	
021	0356_SW026_250217	HDPE (no PTFE)	20 mL	00352312060342	Grey	No	
021	0356_SW026_250217	HDPE (no PTFE)	20 mL	00352312060268	Grey	No	
022	0356_SW028_250217	HDPE (no PTFE)	20 mL	00352312060433	Grey	No	
022	0356_SW028_250217	HDPE (no PTFE)	20 mL	00352312060402	Grey	No	
022	0356_SW028_250217	HDPE (no PTFE)	20 mL	00352312060285	Grey	No	
022	0356_SW028_250217	HDPE (no PTFE)	20 mL	00352312060255	Grey	No	
023	0356_SW032_250217	HDPE (no PTFE)	20 mL	00352312060294	Grey	No	
023	0356_SW032_250217	HDPE (no PTFE)	20 mL	00352312060266	Grey	No	
023	0356_SW032_250217	HDPE (no PTFE)	20 mL	00352312060457	Grey	No	
023	0356_SW032_250217	HDPE (no PTFE)	20 mL	00352312060184	Grey	No	

CHAIN OF CUSTODY

COC#: 79231 ALS Laboratory: ES Sydney Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 20/2/25 1946	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0356_PFASOMP_25

SITE: SMA

ORDER NO: 60739111_2.9.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: ES24AECOMAU0012 V3 / ES2024AECOMAU0012

EMAIL REPORTS TO: [redacted]

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 1.4 °C

Other comments:

024	0356_SW034_250217	HDPE (no PTFE)	20 mL	00352312060384	Grey	No	
024	0356_SW034_250217	HDPE (no PTFE)	20 mL	00352312060249	Grey	No	
024	0356_SW034_250217	HDPE (no PTFE)	20 mL	00352312060322	Grey	No	
024	0356_SW034_250217	HDPE (no PTFE)	20 mL	00352312060370	Grey	No	
025	0356_SW040_250217	HDPE (no PTFE)	20 mL	00352312060412	Grey	No	
025	0356_SW040_250217	HDPE (no PTFE)	20 mL	00352312060217	Grey	No	
025	0356_SW040_250217	HDPE (no PTFE)	20 mL	00352312060476	Grey	No	
025	0356_SW040_250217	HDPE (no PTFE)	20 mL	00352312060341	Grey	No	
026	0356_QC300_250217	HDPE (no PTFE)	20 mL	00350822025584	Grey	No	
026	0356_QC300_250217	HDPE (no PTFE)	20 mL	00350822025687	Grey	No	
026	0356_QC300_250217	HDPE (no PTFE)	20 mL	00350822025603	Grey	No	
026	0356_QC300_250217	HDPE (no PTFE)	20 mL	00350822026041	Grey	No	
027	0356_QC301_250218	HDPE (no PTFE)	20 mL	00352309010648	Grey	No	
027	0356_QC301_250218	HDPE (no PTFE)	20 mL	00352101040235	Grey	No	
027	0356_QC301_250218	HDPE (no PTFE)	20 mL	00352101040352	Grey	No	
027	0356_QC301_250218	HDPE (no PTFE)	20 mL	00352309010991	Grey	No	
028	0356_QC302_250219	HDPE (no PTFE)	20 mL	00352309010842	Grey	No	
028	0356_QC302_250219	HDPE (no PTFE)	20 mL	00352309010642	Grey	No	
028	0356_QC302_250219	HDPE (no PTFE)	20 mL	00352309011082	Grey	No	
028	0356_QC302_250219	HDPE (no PTFE)	20 mL	00352309010609	Grey	No	

Total Bottle Count: ALS: 73, Non ALS: 0

ALSCompass SAMPLING Intelligence

Environmental Division
Sydney
Work Order Reference
ES2504738

Telephone : +61-2-8784 8555

Custody Document for Submissions via ALS Compass App

Project: 60739111 Client: AECOM Project Manager: [redacted]
Phone:

ALS Compass COC Reference: 79231 # Samples: 38 Sampler:
Phone:

Turnaround Requirements: Standard ____ Urgent ____

Special Instructions:	ALS Use Only
	Custody seal intact? YES NO N/A
	Free ice / frozen ice bricks upon receipt? YES NO N/A
	Random sample temperature on receipt? 1.4 °C

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
[redacted]			
Date / Time: 19/2/25 4:50	Date / Time: 19/02/25 16:50	Date / Time: 20/02/25 17:00	Date / Time: 20/2/25 1940

LAB OF ORIGIN:
NEWCASTLE

E-MAILED

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 373633

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**NSW_0356_PFASOMP_25**
Number of Samples	2 Soil, 2 Water
Date samples received	21/02/2025
Date completed instructions received	21/02/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	28/02/2025
Date of Issue	03/03/2025
Reissue Details	This report replaces R00 created on 28/02/2025 due to: Project ID Amended (Client Request)

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
[redacted], Customer Service Supervisor
[redacted], Operation Manager
[redacted], Senior Chemist

Authorised By
[redacted], Laboratory Manager

PFAS in Soils Extended			
Our Reference		373633-1	373633-4
Your Reference	UNITS	0356_QC200_250217	0356_QC203_250219
Date Sampled		17/02/2025	19/02/2025
Type of sample		Soil	Soil
Date prepared	-	24/02/2025	24/02/2025
Date analysed	-	24/02/2025	24/02/2025
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.3	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	4.4	0.1
Perfluorodecanesulfonic acid	µg/kg	<0.2	<0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	99	98
Surrogate $^{13}C_2$ *PFOA*	%	99	100
Extracted ISTD $^{13}C_3$ *PFBS*	%	89	87
Extracted ISTD $^{18}O_2$ *PFHxS*	%	101	101
Extracted ISTD $^{13}C_4$ *PFOS*	%	98	97

PFAS in Soils Extended			
Our Reference		373633-1	373633-4
Your Reference	UNITS	0356_QC200_250217	0356_QC203_250219
Date Sampled		17/02/2025	19/02/2025
Type of sample		Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	93	91
Extracted ISTD $^{13}C_3$ *PFPeA*	%	94	94
Extracted ISTD $^{13}C_2$ *PFHxA*	%	96	95
Extracted ISTD $^{13}C_4$ *PFHpA*	%	96	94
Extracted ISTD $^{13}C_4$ *PFOA*	%	99	94
Extracted ISTD $^{13}C_5$ *PFNA*	%	98	96
Extracted ISTD $^{13}C_2$ *PFDA*	%	104	103
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	104	92
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	103	101
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	97	104
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	93	96
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	93	104
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	98	104
Extracted ISTD $^{13}C_8$ *FOSA*	%	106	95
Extracted ISTD d_3 *N MeFOSA*	%	92	80
Extracted ISTD d_5 *N EtFOSA*	%	94	83
Extracted ISTD d_7 *N MeFOSE*	%	110	101
Extracted ISTD d_9 *N EtFOSE*	%	100	86
Extracted ISTD d_3 *N MeFOSAA*	%	101	98
Extracted ISTD d_5 *N EtFOSAA*	%	97	107
Total Positive PFHxS & PFOS	µg/kg	4.7	0.1
Total Positive PFOS & PFOA	µg/kg	4.4	0.1
Total Positive PFAS	µg/kg	4.7	0.1

Moisture			
Our Reference		373633-1	373633-4
Your Reference	UNITS	0356_QC200_250217	0356_QC203_250219
Date Sampled		17/02/2025	19/02/2025
Type of sample		Soil	Soil
Date prepared	-	21/02/2025	21/02/2025
Date analysed	-	24/02/2025	24/02/2025
Moisture	%	14	26

PFAS in Waters Extended			
Our Reference		373633-2	373633-3
Your Reference	UNITS	0356_QC201_250217	0356_QC202_250218
Date Sampled		17/02/2025	18/02/2025
Type of sample		Water	Water
Date prepared	-	24/02/2025	24/02/2025
Date analysed	-	24/02/2025	24/02/2025
Perfluorobutanesulfonic acid	µg/L	0.02	<0.01
Perfluoropentanesulfonic acid	µg/L	0.02	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.54	<0.01
Perfluoroheptanesulfonic acid	µg/L	0.03	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.66	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.2
Perfluoropentanoic acid	µg/L	<0.02	<0.1
Perfluorohexanoic acid	µg/L	0.06	<0.01
Perfluoroheptanoic acid	µg/L	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	0.03	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.05
6:2 FTS	µg/L	<0.01	<0.05
8:2 FTS	µg/L	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	98	96
Surrogate $^{13}C_2$ *PFOA*	%	99	99
Extracted ISTD $^{13}C_3$ *PFBS*	%	102	92
Extracted ISTD $^{18}O_2$ *PFHxS*	%	106	107
Extracted ISTD $^{13}C_4$ *PFOS*	%	104	102

PFAS in Waters Extended			
Our Reference		373633-2	373633-3
Your Reference	UNITS	0356_QC201_250217	0356_QC202_250218
Date Sampled		17/02/2025	18/02/2025
Type of sample		Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	91	#
Extracted ISTD $^{13}C_3$ *PFPeA*	%	102	34
Extracted ISTD $^{13}C_2$ *PFHxA*	%	102	62
Extracted ISTD $^{13}C_4$ *PFHpA*	%	100	74
Extracted ISTD $^{13}C_4$ *PFOA*	%	105	82
Extracted ISTD $^{13}C_5$ *PFNA*	%	102	85
Extracted ISTD $^{13}C_2$ *PFDA*	%	102	96
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	114	111
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	105	116
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	81	76
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	105	30
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	113	37
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	97	61
Extracted ISTD $^{13}C_8$ *FOSA*	%	107	90
Extracted ISTD d_3 *N MeFOSA*	%	98	103
Extracted ISTD d_5 *N EtFOSA*	%	93	100
Extracted ISTD d_7 *N MeFOSE*	%	109	110
Extracted ISTD d_9 *N EtFOSE*	%	94	102
Extracted ISTD d_3 *N MeFOSAA*	%	120	81
Extracted ISTD d_5 *N EtFOSAA*	%	111	99
Total Positive PFHxS & PFOS	µg/L	1.2	<0.01
Total Positive PFOA & PFOS	µg/L	0.68	<0.01
Total Positive PFAS	µg/L	1.4	<0.01

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			24/02/2025	1	24/02/2025	24/02/2025		24/02/2025	[NT]
Date analysed	-			24/02/2025	1	24/02/2025	24/02/2025		24/02/2025	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	98	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	94	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	1	0.3	0.3	0	95	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	93	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	1	4.4	2.3	63	96	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	94	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	95	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	89	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	98	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	97	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	94	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	99	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	97	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	99	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	93	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	100	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	100	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	102	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	99	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	99	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	99	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	1	<1	<1	0	95	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	1	<1	<1	0	91	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	1	<5	<5	0	104	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	108	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	91	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	1	99	101	2	98	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	1	99	101	2	102	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	95	1	89	89	0	95	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	107	1	101	103	2	110	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	105	1	98	99	1	106	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	98	1	93	93	0	99	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	102	1	94	96	2	103	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	101	1	96	98	2	103	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	98	1	96	97	1	102	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	105	1	99	97	2	101	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	104	1	98	97	1	102	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	115	1	104	105	1	112	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	114	1	104	108	4	109	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	105	1	103	103	0	115	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	111	1	97	100	3	111	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	102	1	93	94	1	100	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	105	1	93	95	2	101	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	109	1	98	97	1	110	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	113	1	106	106	0	111	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	99	1	92	93	1	102	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	101	1	94	95	1	103	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	111	1	110	106	4	115	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	99	1	100	98	2	102	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	115	1	101	109	8	109	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	108	1	97	104	7	109	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			24/02/2025	[NT]	[NT]	[NT]	[NT]	24/02/2025	[NT]
Date analysed	-			24/02/2025	[NT]	[NT]	[NT]	[NT]	24/02/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	89	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	87	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	96	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	103	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	95	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	96	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	106	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	103	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	88	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	96	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	113	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	72	[NT]	[NT]	[NT]	[NT]	72	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	114	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	123	[NT]	[NT]	[NT]	[NT]	111	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	110	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]

Sample Login Details

Your reference	NSW_0356_PFASOMP_24
Envirolab Reference	373633
Date Sample Received	21/02/2025
Date Instructions Received	21/02/2025
Date Results Expected to be Reported	28/02/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil, 2 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	3.0
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

[redacted]	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: [redacted]	**Email:** [redacted]

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	AECOM checks	AECOM checks	AECOM checks	AECOM checks	PFAS in Soils Extended	PFAS in Waters Extended
0356_QC200_250217	✓	✓	✓	✓	✓	
0356_QC201_250217	✓	✓	✓	✓		✓
0356_QC202_250218	✓	✓	✓	✓		✓
0356_QC203_250219	✓	✓	✓	✓	✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

CHAIN OF CUSTODY FORM

[Copyright and Confidential]

ENVIROLAB GROUP
National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
✆ 02 9910 6200 | ✉ sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt, Myaree, WA 6154
✆ 08 9317 2505 | ✉ lab@mpl.com.au

Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
✆ 03 9763 2500 | ✉ melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
✆ 08 7087 6800 | ✉ adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
✆ 07 3266 9532 | ✉ brisbane@envirolab.com.au

Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820
✆ 08 8967 1201 | ✉ darwin@envirolab.com.au

Company:	AECOM
Contact Person:	[redacted]
Project Mgr:	[redacted]
Sampler:	[redacted]
Address:	Level 6, 420 George St, Sydney, NSW, 2000
Phone:	Mob: [redacted]
Email Results to:	[redacted]
Email Invoice to:	[redacted]

Client Project Name/Number/Site etc (ie report title): NSW_0356_PFASOMP_24

PO No. (if applicable): 60739111-2.9.1

Envirolab Quote No.:

Date results required:

Or choose: ☑ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day

Note: Inform lab in advance if urgent turnaround is required - surcharges apply

Additional report format: ✓Esdat | Equis

Lab Comments:

Envirolab Sample ID (Lab use only)	Client Sample ID or Information		Date Sampled	Type of Sample	PFAS Extended Suite - Routine Level	Comments
1	0356_QC200_250217		17/02/2025	Soil ~~Water~~	X	
2	0356_QC201_250217		17/02/2025	Water	X	
3	0356_QC202_250218		18/02/2025	Water	X	
4	0356_QC203_250219		19/02/2025	Soil	X	
	~~0356_QC204_2502~~		~~/02/2025~~	~~Soil~~	~~X~~	
	~~0356_QC205_2502~~		~~/02/2025~~	~~Soil~~	~~X~~	

Provide as much information about the sample as you can

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 273633
Date Received: 21/2/25
Time Received: 0920
Received By: CH
Temp: Cool/Ambient 3.0°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): AECOM	Received by (Company): ECS SYD
Print Name: [redacted]	Print Name: [redacted]
Date & Time: 20/2/2025	Date & Time: 21/2/25 0920
Signature: [redacted]	Signature:

Lab Use Only

Job number: 273633	Cooling: Ice / Ice pack / None
Temperature: 3.0°C	Security seal: Intact / Broken / None
TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

Please send ESdat files to [redacted] and ensure that the files use the PROJECT NAME